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ABSTRACT

This study evaluates two recommendations regarding non-resident students, which called for: (1) increased fees for non-resident students, and (2) adoption by California of a residency policy which requires residence as a non-student for six months before student residency status is granted. The report begins with a summary of the study method, the staff recommendations, and brief arguments for each of the eight recommendations. Chapter 2 summarizes the major findings and conclusions. Chapter 3 discusses student migration within the United States: patterns, barriers to migration in other states and California, characteristics of the student migrant, and post-education migration patterns. Chapter 4 discusses the value of student migration both in terms of national and state considerations. Chapter 5 presents the case for the foreign student on campus in terms of national and state interests and educational diversity. Included in the appendix are tables on the 1968 college student migration to California and other states, and an analysis of the social implications of instructing resident and non-resident students. (AF)

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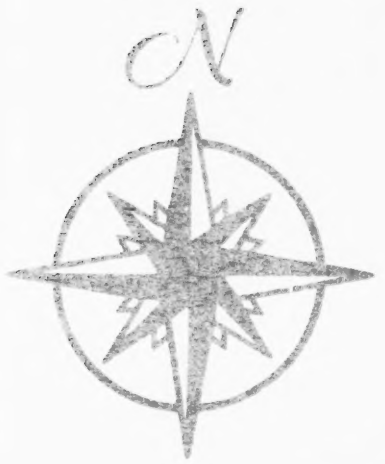


# *The Nonresident Student*

HE 001 667

The Coordinating Council for Higher Education
Staff Report 70–3 May 1970

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FOREWORD

In 1968, the Governor's Task Force on Efficiency and Economy made a number of policy recommendations concerning California public higher education. In March of that same year, the Coordinating Council reviewed these recommendations and asked the staff to evaluate, in particular, two which dealt with nonresident students. After several unavoidable delays, arising from the fact that there has been litigation pending on the residency question, as well as a general lack of data on the subject, the staff study of the two Task Force recommendations is now being presented to the Council.

Under existing policy, California public institutions of higher education generally hold to the concept of providing capacity sufficient to accommodate all eligible California residents who wish to obtain an undergraduate education. This capacity will be unequal to the actual student demand only because of inaccurate enrollment projections or lack of available public funds. In view of this policy, the specific question becomes that of how many nonresident students are to be accommodated in addition to the resident population.

The number of nonresidents may be controlled by the policy techniques of:

1. Differential admissions requirements,
2. Differential tuition and fee charges,
3. Quotas, and
4. Definition of residency.

Obviously, changes in policy regarding admissions requirements and quotas have direct impact upon the numbers of nonresidents who may be enrolled. In contrast, policies regarding student charges and definition of residence have an indirect, though nonetheless significant, effect upon the number of such students. The Governor's Task Force recommendations are directed to the latter two policy techniques of limiting nonresident enrollment.

Recent Coordinating Council recommendations concerning nonresidents (in resolutions adopted in March 1965 and February 1969) have upheld the Master Plan recommendation that nonresidents pay a tuition "sufficient to cover not less than the state's contribution to the average teaching expense per student . . ."

In recent years, all three segments of public higher education have also generally followed this recommendation. There has seldom been, however, any attempt to review the logic of such a basis for a nonresident charge. The following study reviews not only the basis

for nonresident student charges, but also a number of related issues which appear to be relevant in evaluating the recommendations of the Governor's Task Force.

The study begins with a concise summary of the study method, the resulting staff recommendations, and brief arguments for each of these recommendations in Chapter I. Following this, in Chapter II, is a summary discussion of the major findings and conclusions of the study. The casual reader or one wishing only the major results of this study may confine his review of the document to these first two chapters. For those desiring further detail, Chapters III, IV, and V (and related appendices) describe student migration within the United States, the value of such migration, and the question of the foreign student, a conceptually separable consideration. Finally, Chapter VI deals with the legal implications of changes in residence classifications.

This study has been prepared by Charles McIntyre of the Council staff under the general direction of Willard Spalding. The staff has been advised throughout the study by an Ad Hoc Committee consisting of Dr. Frank Kidner, Vice President-Educational Relations, at the University of California; Dr. David Kagan, Assistant Dean and Coordinator of Admissions Services, and Mr. Robert Bess, Director of Special Projects, both at the California State Colleges; Dr. Archie McPherran, Assistant Chancellor for the Board of Governors of the California Community Colleges; and Dr. Morgan Odell, Executive Director of the Association of Independent California Colleges and Universities. In addition, Dr. Howard Bowen, Professor of Economics, Claremont Graduate School, and Dr. Henry Levin, Associate Professor of Economics, Stanford University School of Education, graciously consented to review and comment upon earlier drafts of the study. Responsibility for the study and recommendations, however, is solely that of the Council staff.

Owen Albert Knorr
Director

# CHAPTER I

# SUMMARY AND RECOMMENDATIONS

## A. SUMMARY

This study evaluates two recommendations regarding nonresident students made in 1968 by the Governor's Task Force on Efficiency and Economy. These recommendations call for (1) increased fees for nonresident students, to reduce the level of State support for such individuals, and (2) adoption by California of a student residency policy similar to that used at Michigan State University. (See Appendix A for the full text of these recommendations.)

The Michigan State policy requires residence as a nonstudent for six months before receiving residency status for fee purposes. Status is unchanged while in school, except that a minor whose parents take up residence in Michigan (for purposes other than evading the fee) may become a resident student after six months. In contrast, California policy (for the University and State Colleges) stipulates that an adult may be classified as a resident student if he has been a bona fide resident of the State for one year after his twenty-first birthday and immediately preceding the term of attendance, even though he may have been enrolled during that preceding year.

The consequence of adopting the Michigan State policy would be that many adults (mostly graduate students) in California institutions would now be classified as nonresident students for as long as they were continuously enrolled. There is no precise count of the number whose status would be changed. The Governor's Task force estimated that the new regulation would produce at least $10 million annually. Evidence reviewed in this study indicates that the new regulation would more likely result in approximately $5 million annually. This is based upon the estimated number of students who while originally from another state, are now classified as residents.

Both recommendations have the apparent objective of increasing existing barriers to student immigration into California by increasing the cost of education to the nonresident. The advantages of the recommendations as described by the Governor's Task Force are increased operating revenues and the need for fewer nonresident spaces, thereby releasing facilities for the use of resident students.

Such policies cannot be evaluated properly unless a number of other factors that have implications for state and national policy are considered. In particular, some knowledge of the socio-economic characteristics of the nonresident and his patterns of movement are found to be helpful. Further, examination of the barriers commonly

used by institutions to restrict student immigration suggests that the policy of charging nonresidents more than residents, while valid to a degree, might well be supplemented by judicious use of quotas.

An attempt to identify the economic and social value, if any, of student migration between states appears necessary, but obviously is beset with the difficulty of measuring that which is not readily susceptible to measurement. However, distinguishing between national and state concerns removes some of the ambiguities, and a relatively firm conclusion with attendant policy implications may be drawn.

The foreign student represents several policy concerns that are not analogous to those of native nonresident students. The foreign student, therefore, must be considered separately. Consequently, different policy implications result.

A regulation that denies the right of an individual reconsideration of his residency status after an appropriate period of time has certain legal implications. The constitutionality of such a regulation is explored in this study, and the results would seem to be of major importance to any consideration of new policies regarding nonresident students.

## B. RECOMMENDATIONS

The findings of this study indicate that neither of the recommendations of the Governor's Task Force on Efficiency and Economy are appropriate for California public higher education. The Council staff recommends that the policies outlined below be adopted for California public institutions of higher education.

(1) Long-term policies should provide for a reduction in the barriers to student immigration from other states and foreign countries.

From a national perspective, the goal of equalizing educational opportunity and not restricting interstate student migration to certain socio-economic segments of society is best served by reduction in the barriers to migration; i.e., barriers such as nonresident tuition, differential admissions requirements for nonresidents, and/or nonresident quotas. In addition, more ease in interstate student migration should result in the less populated states not having to conduct low enrollment, high cost programs to satisfy the needs of their students and possibly result in a more efficient functioning of the private market mechanism due to increased mobility of labor factors. There is also a concern that provincialism in higher education be avoided and that states such as California that are net exporters of students while being net importers of trained talent have an obligation to reciprocate in their policies toward immigration of students from other states.

Two factors regarding the nonresident are of major importance to California: (1) the improvement in educational programs due to the cultural diversity added by the nonresident; and (2) the social return to the State from the education of a nonresident as contrasted to the education of a resident. The nonresident charge in California institutions and the relative probability of a nonresident remaining in the state after his education are such that the state's investment in nonresidents results in an expected social return that is equal to or greater than that from educating the resident.

(2) If in the short term it is necessary to arbitrarily limit nonresident enrollment due to a shortage of physical facilities, a quota system would be preferable to either more rigorous nonresident admissions requirements or further increases in nonresident tuition.

One of the major goals of California higher education is to provide educational opportunity to California undergraduate residents. If these residents are displaced by nonresidents due to lack of physical facilities then the private and social loss to California may be substantial. As a consequence, short-term policies, of necessity, may be in distinct contrast to long-term policies. If it is necessary to arbitrarily reject nonresidents, the objective of equal education opportunity would suggest that a quota system is preferable to either higher nonresident charges or increased admissions requirements. California nonresident charges are among the highest in the nation and its nonresident admission requirements among the most rigorous. These two barriers appear to have had the undesirable consequence of restricting interstate attendance opportunities to particular socio-economic segments of society. A quota system is also more direct and predictable than the other two measures.

(3) If arbitrary short-term quotas are used, the first priority for admission of nonresidents from other states should be afforded to the applicant for graduate work who has taken his undergraduate work at a California institution.

The preference for graduate students in this situation is meant to insure that qualified California resident undergraduates are not displaced by nonresident undergraduates. Admission at the graduate level is generally afforded to those in order of greatest qualifications for particular programs. It is possible that the capacity in a number of graduate programs would not be totally utilized if admission were restricted solely to qualified California residents. Further, historical evidence suggests that the individual nonresident graduate student who has taken his undergraduate work in a California institution is more likely to subsequently remain in (and be a benefit to) California than the nonresident graduate who took his undergraduate work in another state.

(4) If arbitrary short-term quotas are used, the first priority for admission of foreign nonresidents should be afforded to those individuals who are "sponsored" either by a government, private organization, or foreign educational institution.

The primary objectives associated with the attendance of foreign students at American institutions are the education and training of individuals, frequently from less developed countries, and the promotion of better understanding and appreciation of the United States on the part of individuals from foreign countries. The achievement of both objectives is predicated upon the foreign student returning to his home country after his education is completed. Evidence indicates that individuals who are sponsored are more likely to return home after their education than are the "unsponsored," and thus more likely to serve the objectives of the program.

(5) California authorities should seek federal sharing in the cost of educating foreign students.

While foreign students clearly enhance the value of higher education for American students through their diverse backgrounds, viewpoints and cultural styles, the primary objectives of foreign student attendance are national in character. California public institutions currently educate one-fourth of all foreign students enrolled in U.S. public institutions. The federal government does not share to any appreciable extent in the direct cost of instructing these students. Consequently, the national distribution of benefits resulting from such education calls for some degree of federal sharing in the public cost to Californians of foreign student education.

(6) The Board of Trustees of the California State Colleges should give consideration to the use of the same nonresident charge for both foreign students and nonresidents from other states.

The State Colleges currently employ a foreign student charge that is significantly lower than the charge for nonresidents from other states. The need for federal sharing of the cost of instructing foreign students was noted above. There does not appear to be any logic, however, for the rather large disparity between the individual charge to the foreign student as contrasted to that of the nonresident from another state.

(7) The California residency regulation whereby an adult may achieve student residency while enrolled should be continued.

California statutes currently offer an adult the opportunity to establish a change of residence while enrolled as a student. The

denial of such an opportunity poses certain legal questions. In the only known test of a regulation which denies the nonresident the right to establish a change of residence, the Idaho Supreme Court held that it (the regulation) was arbitrary, capricious, and unreasonable. An informal opinion from the California Attorney General's Office indicates that, "To deny one group of individuals, namely, those who enter an institution of higher education as nonresidents, the opportunity to thereafter demonstrate a change in their residence status would constitute a violation of the equal protection of the laws provision of the United States Constitution."

(8) The Board of Governors of the California Community Colleges should seek legislation aimed at adoption of a consistent one-year waiting period for changing student residence status in the colleges, similar to that currently used in the State Colleges and University.

The definition of residency ordinarily encompasses both physical presence in a state and the intent to make one's permanent home there. In all but a few states, institutions of higher education require a waiting period of residence within the state before an individual may be reclassified from a nonresident to a resident for tuition purposes. In a number of court cases, the one-year waiting period requirement has been held to be a reasonable period of time in which to ascertain a person's intent to establish residence. While both the California State Colleges and the University require a one-year waiting period, California statutes contain no such provision for the Community Colleges. As a result, an adult attending a Community College may, at the discretion of the individual district, be classified as a resident student immediately upon enrollment without undergoing any waiting period. Evidence indicates that practices vary from district to district, with possibly adverse fiscal implications for a number of the less-wealthy districts. A more uniform policy for the Community College system appears to be in order.

CHAPTER II

FINDINGS AND CONCLUSIONS

## A. UNITED STATES STUDENT MIGRATION

### 1. Migration Patterns

The relative tendency of students to migrate from one state to another appears to have declined recently, after a number of years of apparent stability following World War II. During the fall of 1968, migrants accounted for 16 percent of the nation's total higher education enrollment, whereas they accounted for 20 percent in 1949. A greater proportion of the migrant group, though still less than half, has come to be enrolled in public institutions simply due to the latter's more rapid growth. At the same time, however, the "attractiveness" of the private institution to the migrant does not appear to have diminished since an increasing proportion of private institution enrollment is made up of nonresident students.

Since 1938, California has moved from a "net importer" of students to the point, in 1968, where 46,000 students left the State to obtain a higher education; some 3,000 more than the 43,000 who entered California for the same purpose. This pattern results primarily from California's large net export of students to twelve western states. The other thirty-eight states still "send" more students to California than the reverse.

California public institutions accommodate only 5 percent of the total nonresidents reported to be enrolled in such institutions nationwide. In contrast, there is an apparent over-concentration of foreign students in California, a problem discussed more fully below.

The approximate distribution of California enrollment by residence during 1968-69 was as follows:

| | University | State Colleges | Community Colleges | Private Institutions |
|---|---|---|---|---|
| California Residents | .86 | .97 | .985 | .78 |
| U.S. Nonresidents | .10 | .01 | .01 | .17 |
| Foreign Nonresidents | .04 | .02 | .005 | .05 |
| | 1.00 | 1.00 | 1.00 | 1.00 |

2. Barriers to Student Migration

In addition to the residency definition, three techniques are commonly used as barriers or limitations to nonresident attendance at institutions of higher education: (1) tuition and fee charges, (2) admissions requirements, and (3) quotas. The technique most frequently used is a tuition and fee charge to nonresidents that is significantly higher than that charged to residents.

California public institutions are similar to those in other western states in the degree to which they employ nonresident charges and differential admissions requirements as barriers to student immigration. However, the nonresident charges in California public institutions are among the highest in the country; they exceed by five to seven times the resident charges. This is in marked contrast to the nationwide pattern that has prevailed over the past thirty years in which public nonresident charges have been approximately twice those charged to public residents. In addition, nonresident charges in the University of California and California State Colleges are significantly higher than average charges to nonresidents in similar institutions across the nation.

Nonresident tuition charges during 1969-70 are $1,200 at the University, $890 at the State Colleges (foreign students pay a lower tuition: $255), and a maximum of $390 at the Community Colleges. The average charge is typically lower in each segment due to a number of students having their tuition waived. Revenues from these charges are estimated at $10.4 million for the University and $3.1 million for the State Colleges, or approximately 2 percent and 1 percent, respectively, of the operating budgets of these segments.

For each segment, these nonresident charges approximate the state's contribution to the average teaching expense per student, as advocated in the Master Plan, although the Community College nonresident tuition charge lags by two years since it is based on actual, rather than estimated, costs.

For both the resident and nonresident, the private investment in higher education is significantly greater than the public share or subsidy. This is due to the value of the earnings an individual must forego if he is to attend college along with the direct "out-of-pocket" costs that are the consequence of such attendance.

The nonresident charge results in a public cost to Californians for the education of a nonresident at a four-year public institution that is approximately $900 less than the cost for a resident. In the Community Colleges the cost is approximately $200 less. The smaller public investment in the nonresident is significant for the analysis of the differences in the net social return California may expect from the education of resident as opposed to nonresident students, a topic discussed below.

3. Characteristics of the Migrant

Several sets of data are examined to determine what significant differences, if any, there are between resident and nonresident students, particularly with respect to personal characteristics, family background, situation while in college, and post-education plans or situation. Several distinct patterns emerge.

In virtually all data examined for undergraduates, the nonresident's family background is significantly different than that of the resident. In particular, the nonresident reports a higher average family income, better educated parents, and more often has a father in a professional occupation. Data for California students suggest that these differences do not hold true at the graduate level, at least not in the public institutions. The nonresident and resident student do appear to be from generally similar racial backgrounds.

These results are quite consistent with the usual intuitive notions regarding nonresidents. More rigorous admissions criteria along with higher tuition and fees and transportation costs are generally thought to restrict student migration to individuals from financially-able households. The heads of such households usually have achieved a higher-than-average level of education and are frequently employed in professional and managerial occupations.

Policies for the waiver of nonresident tuition charges normally are limited to graduate students. Thus, the differential cost of being a nonresident student at the graduate level is significantly less than at the undergraduate level. The absence of socio-economic differences between resident and nonresident students at the graduate level then appears to be a natural consequence of such pricing practices and the generally comparable admissions policies for both students at that level.

Possible differences in the personal characteristics of the two student types are not so clear. Student data for undergraduates at public institutions outside California indicate that at the time of college graduation the nonresident is (on the average) older, more often male, and more often married than is the resident. In private institutions the same characteristics are exactly reversed; i.e., the nonresident is younger, more often female and single. These comparisons do not hold true for undergraduates surveyed in California institutions. There appear to be fewer significant differences in personal characteristics between residents and nonresidents at the graduate level.

As expected, the nonresident spends from $500 to $1,000 more, on the average, per year than does the resident. The data suggest that the nonresident, particularly at a private institution, relies more upon loans and grants and less upon term-time employment than the resident in supporting his direct costs of education. The

nonresident more often takes his major field in humanities and, in public institutions, the professions. The resident more frequently chooses education as his major. There is also some evidence that the nonresident completes his education more quickly and with a higher grade point average than the resident, though the data are not totally consistent. Again these results seem to reflect the more rigorous academic criteria generally applied to the admission of nonresidents.

The nonresident in the California State Colleges appears to be quite different than his counterpart at the University. Data describing the socio-economic characteristics of the State College nonresident support the intuitive notion that very often he initially may have immigrated to California for purposes other than obtaining a higher education. Data describing the characteristics of community college nonresidents are not currently available.

The above results suggest that the use of differentially higher nonresident charges and, to a lesser extent, differential admissions requirements restrict student migration to individuals from "higher" socio-economic segments of the population. While some differential in nonresident charges appears valid, greater reliance upon the quota system may be in order. If nonresident enrollment must be limited, then use of the quota system would seem to be more direct and predictable. It would also impose fewer restrictions on the migration of students from particular socio-economic backgrounds.

4. Post Education Patterns

The probability of a nonresident embarking upon graduate work is greater than that for the resident. The resident typically plans to embark upon full-time career work immediately following graduation and more frequently, as implied by his major, in the teaching profession. Other evidence does indicate, however, that a student will often emigrate for his education to the state in which he wishes to teach. A very distinct contrast between the two student types in public institutions is noted in the tendency for nonresidents to enter government employment far more often.

There is little data describing the migratory patterns of the resident and nonresident student following their education. Several surveys, however, can be examined productively with this dichotomy of student type in mind. The data cover different populations at different points in time, with some expected differences in results for "staying ratios." The observed staying rates of residents and nonresidents bear a remarkably consistent pattern over all the sets of data, however.

In general, the nonresident appears to stay three-fourths "as often" in California after undergoing his education as does the resident. This relationship increases to 90 percent as often for those who

have undergone both undergraduate and graduate work in California. In contrast, if undergraduate work was done elsewhere, the nonresident who earned his Ph.D. stayed only about 70 percent as often as the resident. The results further suggest that if a California resident goes out of state for undergraduate training and returns for graduate work, he is more apt to remain subsequently in California than is the resident who does both his undergraduate and graduate work in California.

Data from Colorado suggest that nonresidents remain in that state about two-thirds as often as do residents. Generally lower staying ratios for Colorado than for California are not unexpected in view of the general pattern of migration toward the West Coast during the past decade.

The relatively similar staying rates of residents and nonresidents have significant implications for the possible value of student migration, which is discussed below.

B. VALUE OF STUDENT MIGRATION

The values that accrue from the migration of college students between states may be categorized somewhat arbitrarily into those of national concern and those which appear to be uniquely a concern of the state.

Several conclusions bearing upon nationwide educational policy result from the findings of this study. Opportunities for higher education (in particular, at the undergraduate level) in a state other than that of a student's residence appear to be restricted to individuals from particular socio-economic segments of society. This consequence would not appear to be totally consistent with a national public policy of equalizing educational opportunity.

Opportunities for students who desire an education in certain specialized fields appear to be effectively reduced when barriers to student migration are increased. Conversely, the effort to provide specialized educational opportunities in the face of restrictive barriers to student migration may force less-populated states to conduct low-enrollment, high-cost programs.

It also may be argued that the nonresident fee or surcharge in the absence of quotas acts as an interstate tariff on the export of the good, i.e., the education purchased by the individual wishing to emigrate. This may be compared to the classical case of price discrimination in which there may be a loss of consumer (in this case, student) welfare. Further, it seems possible that restrictions on the migration of students may subsequently result in less interstate movement of such productive labor resources upon completion of their training. A possible consequence would be less efficient functioning of the private market mechanism due to decreased mobility of labor factors.

Finally, there is the national concern that "provincialism" in higher education be avoided. There also is the feeling that states such as California, which are net exporters of students while being net importers of trained talent, have an obligation to reciprocate in their policies toward immigration of students from other states.

Irrespective of national policy concerns, it seems that from the State's standpoint two factors are of major importance: (1) the improvement in educational programs due to the cultural diversity added by the nonresident; and (2) the possible social return to the State from the education of a nonresident.

The presence of the nonresident and his interaction with the resident student, both in and out of class, is thought to be of considerable value. Students from different states and regions introduce a diversity of backgrounds, viewpoints, and life styles that enhance the educational experience of all students. Unfortunately, very little may be said regarding this "diversity value" other than to point out its obvious potential.

Any analysis of the social return from resident as opposed to nonresident instruction, such as that contained in this study, is complicated by the obvious difficulty of specifying and measuring the social benefits that result from higher education, problems with available data for educational costs and migration rates, and the several assumptions required before a "solution" may be obtained. Even so, the systematic formulation required by this type of analysis proves to be helpful in identifying various issues and revealing some dubious assumptions which appear to be implicit in current policy. The analysis cannot define the precise enrollment mix of residents and nonresidents nor can the results be used to set the exact level of nonresident tuition. The results, however, do indicate the directions that nonresident policies should take.

Public support of higher education enables society to realize those social benefits (avoid those social costs) which would not (would) otherwise result if the allocation of resources for higher education were left entirely to the private market mechanism. The social return (social benefit less social cost) to a particular state from an individual's education is forthcoming largely after his formal instruction is completed and for as long as he remains in that state. Assuming that the social benefits from higher education are not related to an individual's residence status while a student, the relevant data are: (1) migration patterns of the resident and nonresident student after their education is completed, and (2) the public cost of educating each type, determined in part by the difference in resident and nonresident charges.

The large differential that now exists between resident and nonresident charges in California results in the cost to the public for a resident student exceeding that for a nonresident by some two

to four times, depending upon the level of instruction and the segment. At the same time, data gathered for this study indicate that, following their education, nonresidents tend to stay in the State about three-fourths as often as do residents. Given these data, the expected value of the social return from educating an additional nonresident will, in all probability, exceed that from educating an additional resident.

If maximizing the social return to the State were the primary objective of public investment in California higher education, appropriate long-term public policy would not be such as to further increase the barriers facing the nonresident student. Rather, a lowering of those barriers appears in order. The latter policy may be implemented by a reduction in the differential between nonresident student charges in California public institutions and student charges elsewhere; i.e., a decrease in the relative price charged to nonresidents in California public institutions. (This may be accomplished in part by an explicitly more liberal policy regarding nonresident tuition waivers.) The major consequence of this policy is likely to be both an absolute and a relative increase in nonresident enrollment. Another consequence may be a reduction in the existing differential between charges levied upon nonresidents and California residents. This reduction is not, however, the major objective of the policy described.

These policies may not be reasonably employed without limit, however. Obviously, as the relative charge to the nonresident decreases, the cost of his education to the California public increases and, as a result, the expected social return from his education may well decrease. Further, the possible social and private cost of denying educational opportunity to California residents who are not able to continue their education if displaced by nonresidents is a major factor, particularly in the short term. In addition to accommodating the private demand on the part of residents and avoiding possible social costs, public support of higher education also accounts for (1) difficulties certain individuals may have in assessing the private benefits of education and (2) redistributing economic and social opportunities through the vehicle of providing equal educational opportunities for those who cannot afford to pay the entire cost of their education. There is an obvious danger is adopting a policy which would be so attractive to nonresidents that California public institutions are unable to accommodate the demand of residents and to provide equal opportunities to residents because of limitations in physical facilities. In this regard, an apparent current shortage of physical spaces suggests that nonresident policies need to be formulated to solve short-term problems as well as to meet long-term objectives.

The major danger of nonresident attendance precluding the admission of residents appears to be at the undergraduate, and particularly

lower division, level. At the graduate level, students are admitted to particular programs or departments in the order of their qualifications. Evidence indicates that existing capacity in many graduate programs in both the State Colleges and University would not be fully utilized if only residents were to be allowed admission. The same may be true for certain major programs at the upper division level.

Another implication of the above findings is the desirability of reciprocal agreements among states concerning the migration of students. The public segments of higher education in California might well explore the possibility of such reciprocal agreements, particularly with those western states to which (and from which) the bulk of nonresident students from California migrate. Such agreements could cover the migration of students in all fields, not just certain specialized areas, which is frequently the case in regional compacts.

C. THE FOREIGN STUDENT

Three major objectives ordinarily are cited in justifying the attendance of foreign students at American institutions. Two of these objectives appear to be clearly related to the national interest:

(1) The education and training of individuals who normally return home to contribute to the economic and social improvement of a frequently less developed country, an indirect form of technical aid and assistance on the part of the United States to less developed nations.

(2) The promotion of a better understanding and appreciation of the United States on the part of individuals from foreign countries.

There is some disagreement as to the degree to which each objective is achieved. This is particularly true if, as appears to be the case, significant numbers of foreign students who are not sponsored by a government or private organization remain in the United States following their education, rather than returning home.

The third objective appears to be more local, with the primary benefits accruing to the state in which the foreign student is enrolled:

(3) The enhancement of the value of higher education for American students through meeting and knowing students with diverse backgrounds, viewpoints, and cultural styles.

California public institutions currently educate one-fourth of all foreign students enrolled in U.S. public institutions. Many of

these students are at the graduate level. The federal government does not share to any appreciable extent in the direct cost of instructing the foreign student. Consequently, the size of California's public investment in foreign student education is significant and apparently greater than any other state in the nation.

The distribution of benefits resulting from foreign student education logically calls for some degree of federal and state sharing in the public cost of that education.

Restrictions on foreign student enrollment appear to be undesirable for many of the same reasons argued in the case of native nonresidents. However, if lack of facilities in the short term makes it necessary to limit the numbers of foreign students, available evidence indicates that those sponsored by government or private organizations might well receive first priority for admission. Data indicate that these individuals are more likely to return home after their education than are the "unsponsored," thereby affording a greater probability of achieving the national objectives described above.

D. RESIDENCE CLASSIFICATION

The definition of residence ordinarily encompasses both physical presence in a state and the intent to make one's permanent home there. Institutions of higher education vary greatly in the criteria used to determine student residence. In most instances, however, the major criterion applies to the length of residence in the state. Wives, "emancipated minors," and aliens are normally covered under separate regulations. Exceptions to the general criteria are frequently granted to military personnel and their dependents, institutional staff and their dependents, and graduate students.

Normally the residence of a minor is the same as that of his parents or guardians. The minor may gain or lose residence while in attendance if his parents or guardians change their state of residence. An adult or emancipated minor may establish his own residence, but, in most states, is required to do so while not attending an institution. Among the few exceptions to this regulation are the states of Oregon and California.

California statutes currently stipulate that an adult attending either the University or a State College may be classified as a resident student if he has been a bona fide resident of the State for one year after his twenty-first birthday and immediately preceding the term in which he enrolls. In contrast, California statutes contain no such provision for the Community Colleges. As a result, at the discretion of the local district, an adult attending a Community College may be classified as a resident student immediately upon enrollment and without undergoing the

one-year waiting period. Evidence indicates that classification practices vary from district to district with possible adverse fiscal implications for a number of the less-wealthy districts.

In all but a few states, institutions of higher education require a waiting period of residence within the state before an individual may be reclassified from a nonresident to resident for tuition purposes. The length of required residence is normally one year. The legality of the one-year-residence requirement has been challenged in the courts, the most recent case involving the University: Kirk v. Board of Regents of the University of California, 273 A.C.A. 463 (May 28, 1969). The California Appeals Court ruled that such a regulation "classifying students as residents or nonresidents for tuition purposes was not arbitrary or unreasonable...." In this, and other related cases, the one-year requirement has been held to be a reasonable period in which to ascertain a person's intent to establish residence.

The Michigan State University regulation suggested for adoption in California goes beyond the one-year requirement and would mean that students could no longer attain residency, for tuition purposes, while enrolled in a public institution. The regulation reads in part:

> No one may gain or lose the status of a resident while a student at the University.

An exception to this regulation is that a minor whose parents or legal guardian take up residence in Michigan (for purposes other than evading the fee) may become a resident student.

A regulation that denies a student the opportunity to establish a change of residence poses certain legal questions. The constitutionality of the Michigan State regulation has not been challenged.

A similar regulation, however, employed by the Board of Trustees of the Idaho State College was challenged in 1960. This regulation provided in part that:

> Any person who is properly classified as a nonresident student retains that status throughout continuous regular term attendance at any institution of higher learning in Idaho.

The Idaho Supreme Court in Newman v. Graham, 349 P.2d 716, held that this regulation was arbitrary, capricious and unreasonable.

An opinion was solicited from the California Attorney General's office as to the constitutionality of California public institutions adopting a definition of residency similar to that of Michigan State University. (The text of this opinion is contained in Attachment II.)

In his informal opinion, the Attorney General concludes that the Idaho Supreme Count correctly interpreted the constitutional issue in Newman v. Graham and that: "To deny one group of individuals, namely, those who enter an institution of higher education as non-residents, the opportunity to thereafter demonstrate a change in their residence status would constitute a violation of the equal protection of the laws provision of the United States Constitution."

## CHAPTER III

## STUDENT MIGRATION WITHIN THE UNITED STATES

### A. MIGRATION PATTERNS

The volume of interstate migration by students attending public and private institutions of higher education appears to be declining relative to the trend in total national enrollment. After a 1949 "high" when 20 percent of total enrollment was represented by nonresidents, the proportion of migrants had declined until, during the fall of 1968 it amounted to some 16 percent of nationwide enrollment. (See Tables 1 and 2, Appendix B.) This relative decline in student migration seems to contrast sharply with the relatively constant rate of interstate migration by the general population over the past decade.[1]

There is also an increase in the tendency for migrants to attend private institutions. In 1968, some 33 percent of all private institution students were attending college outside their home state, a significant increase over the 28 percent recorded during 1949.

The trend for public institutions apparently is just the opposite. The proportion of nonresidents among total public enrollment declined from 12 to 9.3 percent during the twenty-year period ending 1968. These statistics are misleading, however, due to the more rapid growth of public institutions. In fact, the percentage of all migrants enrolled in public institutions has actually increased during the past twenty years, from 30 percent in 1949 to 40 percent in 1968.

On a regional basis the major stream of net student migration during the last thirty years has consistently been from the Mideast states (particularly New York, New Jersey, and Pennsylvania) into New England, the Great Lakes area, and the Southeast states.[2] The migration stream into New England is constituted primarily by individuals attending private institutions, most of which are located in Massachusetts. The stream from the Mideast into the Plains states is largely from the same three states into Michigan and Ohio, and is generally concentrated in public institutions.

Another significant migration stream during the same thirty-year period has been from the Great Lakes states, principally Illinois, into the Plains states. No similar streams of migration are discernible with respect to the Southwest. For both 1938 and 1949 there was a significant net migration of students from the Rocky

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1. All footnotes follow the text.

Mountain states into the Far West. This stream was reversed, however, in 1958 and again in 1963 and 1968. This latter migration trend is composed primarily of California individuals who are attending private institutions in Utah.

Of the ten Rocky Mountain and Far Western states only Montana and New Mexico report (during 1968) sending more students to California than California sent to them (19 and 28 more, respectively--see Appendix B, Table 3). California was a particularly heavy "net exporter" of students to public institutions in Oregon, Arizona, Colorado, and Washington, and, as noted, private institutions in Utah.

Since 1938 California has moved from a "net importer" to a "net exporter" of students. This trend is particularly noticeable during the recent ten-year period 1958 through 1968. (See Table 4.) The State still accommodates some 1,300 more nonresident students in its public institutions than the number of California residents who attend public institutions elsewhere. At the same time, however, 4,500 more California residents attend private institutions outside California than the reverse (i.e., nonresidents attending California private institutions).

In general, California institutions appear to have become less "attractive" to the migrant student. Whereas California public institutions handle some 16 percent of total public enrollment in the United States, the California public institutions accommodate only 5 percent of the total nonresident enrollment. This observation is somewhat over-emphasized by the inclusion in the data of the large California Community College population. However, the general observation would appear to hold even when one examines relative enrollments by type of institutions or by level of instruction. (See Tables 5 and 6, Appendix B.)

In contrast to California's relatively nominal accommodation of United States nonresidents, there is an over-concentration of foreign students in the State. California public institutions accommodated nearly one-fourth of all foreign students reported enrolled in public institutions nationwide during 1968. While the concentration seems to have been somewhat less in private institutions, the State as a whole accommodated nearly one-fifth of the nation's total foreign student group. The foreign student problem is discussed in Chapter V.

## B. BARRIERS TO MIGRATION

There is considerable variation among institutions of higher education in the way in which they define residency. In addition to the residency definition, there are several techniques which are commonly used as barriers or limitations to nonresident attendance.

These techniques are;

1. Differential tuition and fee charges,

2. Differential admissions requirements, and

3. Quotas.

1. In Other States

In a somewhat different sense there are barriers imposed by a number of states with respect to changing residence status. These barriers are examined in Chapter VI along with other legal questions arising from the various definitions.

A recent study by Chamberlain and Strand found that all but 5 of a sample of 304 public institutions across the nation charged nonresident tuition and fees that were differentially higher than those charged to residents.[3]

Another 1967 survey, conducted by the North Carolina Board of Higher Education, found that all of the 62 public institutions sampled in 45 states charged differential rates to residents and nonresidents. The differential averaged $381 at the undergraduate and $326 at the graduate level.

The Chamberlain-Strand study further found that admissions policies in 72 percent of the institutions were more restrictive for nonresidents than for residents. When asked to rate the two "barriers", admissions officers indicated they felt admissions policies to be a more limiting technique than the differential charge. In general, both admissions policies and differential student charges are expected by these admissions officers to become an increasingly more limiting factor to nonresident attendance. If true, this would continue the trend observed over the last ten years. Evidence indicates that in recent years nonresident charges have increased at more rapid rates than were observed during the late 1950's and early 1960's. (See Table 7, Appendix B.)

The differential in undergraduate admissions policies is generally based upon (1) high school class rank, (2) test scores, and (3) high school grade-point average. Similar admissions differentials do not often occur at the graduate level. The differential admission standard is used most frequently by institutions in the Plains and Far West states, least often in the New England region.

In contrast, the quota technique is less often employed (41 percent of the institutions surveyed in the Chamberlain-Strand study indicated use of this technique). Institutions utilizing quotas

were concentrated in only 19 states. This technique is most often used in New England and by smaller institutions. Few Far Western and Southwestern institutions employ nonresident quotas.

The quota is generally set upon the following criteria: (1) residence hall spaces, (2) classroom spaces, (3) a straight percentage of undergraduates enrolled (usually from 20 to 25 percent), and (4) available faculty members.

In the North Carolina study, relative fewer institutions (only 30 percent) reported using a quota for undergraduate nonresidents. Of those who used quotas, the average was approximately one-fifth of total undergraduate enrollment. No institutions reported established quotas for graduate nonresident enrollment.

2. In California

a. Quotas

The specific barriers to nonresident attendance employed by the three public segments of higher education in California seem generally consistent with the patterns reported for public institutions in the Far West. Neither the University, State Colleges, nor Community Colleges explicitly use quotas for nonresidents at any level of instruction. There is, however, some evidence that the public four-year segments currently are being forced to impose quotas upon nonresident students due to lack of spaces. In the University, for example, the overall growth rate in student enrollment from fall 1968 to fall 1969 was 7 percent. Resident growth was nearly 9 percent, while the nonresident student population grew by only 2 percent, a sharp contrast to recent years when growth in nonresidents exceeded that for residents. (See Table 8, Appendix B.) Evidence indicates that a similar trend may be occurring in the State Colleges. (See Table 9, Appendix B.)

There appear to be no similar quota restrictions being imposed by Community Colleges and less than one-half dozen California private institutions report the use of quotas for nonresident undergraduate enrollment.[4]

b. Nonresident Tuition

Both University and State Colleges historically have charged nonresident rates that are among the highest levied by public institutions in the nation.. (See Tables 10 and 11, Appendix B.) The national pattern during the last twenty years has consistently been for nonresident charges to be just over twice those charges levied upon residents. The University and State Colleges have consistently maintained a much greater differential--the University now assesses

nonresidents a charge that is nearly five times the charge paid by residents, while in the State Colleges the same charge multiple is approximately seven times for United States nonresidents.

The current nonresident charge at the University is $1,500 annually, including $1,200 tuition and $300 in fees. This is to be increased in 1970-71 to $1,550 and $1,680 for undergraduates and graduates, respectively. In the State Colleges, United States nonresidents pay $890 plus the materials and service fee of $102, while foreign students' tuition is limited to $255 annually. The latter charge increases to $360 in 1970-71, effective 1970-71.

Each segment grants a certain number of nonresident tuition waivers each year. Such waivers are limited to 15 percent of nonresident enrollment at the University while the State Colleges may legally waive the tuition for 25 percent of graduate nonresidents, though typically the actual number of waivers is far less. During 1969-70, an estimated 6 percent of all nonresidents in State Colleges (including both those from the U.S.A. and foreign countries) had their tuition waived.

Community Colleges currently may charge nonresidents $13 per unit of instruction taken but not to exceed $390 per year. (The unit charge increases to $14 in 1970-71.) Charges are set each year based upon the "average teaching expense" reported two years previous. The charge is permissive; typically 25 percent of nonresidents are not charged. In 1968-69, for example, when the maximum charge was $375 per student, the individual who took more than six units paid $190, on the average.[5]

The existing difference in California resident and nonresident student charges makes it possible to compare in a very gross sense the relationship between public and private costs for the two student types.[6] The estimated average annual costs for 1969-70 are as follows:

| | Resident | Nonresident |
|---|---|---|
| Four-year public institutions | | |
| Undergraduate | | |
| Private Cost | $4,600 | $5,500 |
| Public Cost | 1,800 | 900 |
| Graduate | | |
| Private Cost | 7,800 | 8,700 |
| Public Cost | 4,500 | 3,600 |

| | Resident | Nonresident |
|---|---|---|
| Two-year public institutions | | |
| Lower division | | |
| Private Cost | $4,200 | $4,400 |
| Public Cost | 1,100 | 900 |

The private investment in higher education is substantial at all levels and significantly greater than the public share or subsidy, even for those residents who are attending California institutions under the 1969-70 "tuition free" policy. The primary reason for this phenomenon is the value of earnings an individual must forego if he is to attend college plus the direct "out-of-pocket" costs that are the consequence of attending a college. Notably, the cost to Californians for the education of an undergraduate nonresident in the four-year segments is approximately one-half that of the resident. At the graduate level and in the Community Colleges, the public cost for nonresidents is approximately four-fifths that for residents. The smaller public investment in the nonresident is significant for the analysis of differences in the social return California may expect from the education of resident as opposed to nonresident students. This analysis is contained in Chapter IV.

A similar comparison for the foreign student would not be meaningful due to the problem of interpreting foregone earnings. As noted above, the foreign student at a State College pays a significantly lower tuition than the U.S. nonresident.

Looking at such costs from the standpoint of the student, it is some 20 percent more expensive for the undergraduate to attend college out-of-state than at "home". Due to the greater investment in terms of foregone earnings, the same relative differential in the price of an out-of-state (versus an in-state) education is just over 10 percent for the graduate student. This factor, among others (such as more liberal nonresident-tuition waiver policies at the graduate level and the desire to obtain programs at specific institutions), may account for the relatively greater tendency of graduate students to attend a public institution out-of-state than is the case for undergraduates (see Appendix B, Table 1).

c. Admissions Policies

Admissions policies in the California Community Colleges and private institutions are similar for residents and nonresidents. The same is true for explicit graduate admissions requirements in the four-year public segments. However, at the undergraduate level, both four-year segments employ differential requirements. At the

University the following requirements are in effect.[7]

| California Resident | Nonresident |
|---|---|
| Freshman: 3.00 or higher gpa on the required subject pattern, and CEEB examinations (2500 total on the exams required if high school average is between 3.00 and 3.09)<br>OR<br>Admission by examination:<br>SAT - 1100<br>Three Achievement Tests - 1650 total (minimum of 500 on each) | Freshman: 3.40 or higher gpa on the required subject pattern and CEEB examinations<br>OR<br>Admission by examination:<br>SAT - 1100<br>Three Achievement Tests - 1725 Total |
| Advanced Standing | Advanced Standing |
| 1. If eligible from high school, 2.00 gpa on college work; no required number of units. | 1. If eligible from high school by nonresident requirements, 2.80 gpa on college work; no required number of units. |
| 2. If ineligible from high school from lack of required high school subjects only, 2.00 gpa in college work and courses required to clear high school subject deficiency; no required number of units. | 2. If ineligible from high school from lack of required high school subjects only, 2.80 gpa in college work and courses required to clear high school subject deficiency; no required number of units. |
| 3. If ineligible from high school because of low scholarship, 2.40 gpa on 84 acceptable quarter units. | 3. If ineligible from high school because of low scholarship by nonresident requirements, 2.80 gpa on 84 acceptable quarter units. |

State College undergraduate admissions policies are somewhat analogous with respect to different criteria facing resident and nonresident applicants.[8]

| | California Resident | Nonresident |
|---|---|---|
| First-Time Freshmen | A composite score of high school gpa and either the ACT or SAT to provide an index no less than 3072. | Eligibility index of 3402. |

| | California Resident | Nonresident |
|---|---|---|
| Lower Division Transfer | Same as first-time freshmen plus 2.0 average in all college work. (Both resident and nonresident.) | |
| Upper Division Transfer | 2.0 GPA | 2.4 GPA |

C. CHARACTERISTICS OF THE STUDENT MIGRANT

There is considerable literature describing the numbers and direction of student migration flow. Yet little data exist which describe the nature of the nonresident student from within the United States. Does the United States nonresident differ significantly from the resident with respect to personal characteristics, family background, pre-college preparation, etc.? Answers to such questions would appear to be useful in policy decisions regarding the nonresident.

The following analysis examines possible differences in a number of socio-economic variables describing both resident and nonresident students. These samples are taken from the following populations:

1. University of California students, enrolled spring 1967;
2. California State College students, enrolled spring 1967;
3. United States college seniors, enrolled in public and private institutions, spring 1961;
4. California college seniors, spring 1961;
5. Members of the University Alumni Association, having attended the Berkeley campus (sampled in 1964); and
6. California high school seniors, enrolled spring 1967.

Possible biases resulting from the survey mechanics and responses for each sample generally are not discussed except as they may appear to distort comparisons of resident and nonresident students. Results from each sample are examined separately in view of the obvious differences between each population. The examination covers a number of selected socio-economic characteristics of each student type: personal characteristics, family background, situation while in college, and post-education plans or situation. Unless otherwise indicated, all statements contrasting residents and nonresidents are based upon statistically significant differences.[9] One of the obvious difficulties encountered in this type

of analysis is that any reasonable sample of students enrolled will include a small number of nonresidents relative to the number of residents.

1. University of California Students, Spring 1967

The following compares residents with nonresidents from the United States. (See Table 12, Appendix B.) Characteristics of foreign students are shown in that table (Table 12) but are discussed in Section IV.

At the undergraduate level, in contrast to the California resident, the nonresident student:

more often has a father in a professional or executive occupation,
a father with some college education,
less often lives with a parent or guardian while in school,
reports a higher family income, and
spends $1,100 more per year in necessary college expenses.

The resident and nonresident undergraduate student appear to be similar with respect to:

age,
sex,
race, and
marital status.

At the graduate level the pattern is quite different, particularly with regard to family background. In contrast to the California resident, the nonresident graduate student at the University:

is younger (since by regulation he may not become a resident prior to age 22),
more often married,
less often lives with parents or guardians, and
reports spending a surprisingly low $600 per year more, on the average, for his education than the resident.

The two graduate student types appear similar with respect to:

sex,
race,
father's occupation,
father's education, and
family income.

2. California State College Students, Spring 1967

In this case, the foreign and United States nonresident data have

been aggregated due to the relatively small sample size. (See Table 13, Appendix B.) Notably, a number of the differences between the two student types noted in the University case do not hold here and several different patterns emerge.

At the undergraduate level, in contrast to the resident, the nonresident student:

more often is male,
of non-Caucasian racial background (as expected, due to the inclusion of foreign students),
financially emancipated from parents,
more often has a father in a managerial or professional occupation,
less often lives with a parent or guardian while enrolled,
spends an average of $600 more per year on school, and
reports a lower cumulative grade point average.

The undergraduate resident and nonresident do not appear to be significantly different in terms of:

age,
marital status,
father's education, and
family income.

At the graduate level, in contrast to the resident, the nonresident student:

less often is married, and
spends an average of $900 more per year for school expenses.

Other differences are noted, some of which are consistent with those found at the undergraduate level; i.e., the nonresident student:

more often is male,
of non-Caucasian racial background,
has a father with some higher education, and
a father in a managerial or professional occupation.

However, none of these differences can be designated as significant due largely to the sample sizes involved. Finally, the two student types seem quite similar with respect to:

age,
living situation at college,
financial self-support,
cumulative grade-point average, and
family income.

3. Seniors, 1961

A nationwide survey of college seniors during the spring of 1961, conducted by the National Opinion Research Center (NORC) at the University of Chicago, affords the opportunity to compare various characteristics of resident and nonresident students across the country.

Nearly 30,000 non-California college seniors are included in the following analysis for both public and private institutions. (See Table 14.)

a. Non-California Public Institutions: In the public institutions, in contrast to the resident, the nonresident student:

more often is older,
male,
married,
has a father and mother with more than high school education,
has a father in professional, proprietary, or managerial occupation,
plans graduate work,
anticipates a career in the professions (less often in education),
expects to work in private business and government (less often in teaching),
takes major field in the humanities and professions (less often in education),
has a higher average family income,
reports a higher cumulative grade-point average during college,
less often is employed during the school year, and less often plans to embark on full time career work immediately after graduation.

The resident and nonresident seniors are quite similar with respect to:

race,
religion, and
plans for military service upon graduation.

b. Non-California Private Institutions: With several prominent exceptions, the differences between residents and nonresidents noted above for public institutions also hold true in the case of private institutions.

In contrast to the resident, the nonresident student in a private institution:

is younger,
more often is female,
single,
Protestant,
has parents who obtained some education beyond high school,
has father in a professional, proprietary, or managerial occupation,
takes a major field in the humanities and social sciences (less often in business and education),
plans graduate work (less often expects to go directly into a full time career job),
plans a career in the humanities or professions,
expects to be employed by a hospital or charitable agency (less often by elementary and secondary schools),
reports a higher average family income,
reports a higher cumulative grade-point average (if grades are corrected for institutional quality), and
less often is employed during school.

Private institution residents and nonresidents are apparently similar with respect to:

race,
frequency of major field in the natural sciences and engineering,
college grade-point average (if unadjusted for institutional quality),
plans for military service,
expected career fields in other than the humanities and professions, and
expected employer (other than hospital or elementary-secondary school).

Another interesting comparison made possible by the NORC data concerns the possible differences between the nonresident at a private institution and the nonresident at a public institution. Most of these differences are suggested by the above findings.

In contrast to the nonresident at a private institution, the nonresident student at a public institution:

is older,
more often is male,
married,
of non-Caucasian racial background (though this difference is not quite statistically significant),
Protestant,
employed during school (especially full time),
more often anticipates a career in engineering (less often in the humanities),

expects to work for federal or state government (less often for a hospital or welfare agency),
takes a major in education, business, engineering, or the professions (less often in the social sciences and humanities),
less often has parents who obtained education beyond high school,
has father in a professional, proprietary, or managerial occupation,
plans graduate work,
reports a lower average family income, and
reports a lower college grade-point average (when corrected for institutional quality).

The two nonresidents are apparently similar with respect to:
frequency of major field in natural sciences,
college grade-point average (if not corrected for institutional quality),
plans for military service, and
frequency of anticipated careers in education, business, professions and natural sciences, and
expected employer (other than the above noted areas of government and charitable organizations).

c. California College Seniors, Spring 1961. This is a relatively small sample and University and State College students are merged when, as noted above, the two may be quite dissimilar, especially in the case of the nonresident student in each segment. These factors may explain several of the unusual results for California which differ decidedly from those obtained in the non-California sample. (See Table 15.)

For the California public institutions, in contrast to the resident student, the nonresident student:
is older,
more often is married,
has mother with a high school or less education,
majors in business (less often in education),
is employed during school,
plans to embark on a full time career job immediately after graduation,
anticipates a career in business (less often in education or the professions),
expects to work in government,
reports a lower average family income, and
reports a higher cumulative grade-point average.

The two student types appear to be different with respect to:

sex,
race,
religion,
father's education,
father's occupation,
plans for graduate work, and
plans for military service.

None of these differences, however, are significant.

In the California private institutions sampled, fewer differences existed between resident and nonresident student. In fact, the only significant difference appears to be in the greater numbers of nonresidents anticipating a career in the professions. The apparent similarities between residents and nonresidents in California private institutions are not at all consistent with findings from the other sets of data studied.

4. Berkeley Alumni Survey, June 1964

Data from a survey of the Berkeley Alumni Association during 1964 allows a further and somewhat different comparison of residents and nonresidents. (See Table 16.) In this case the current living locations are also available for comparison. Accordingly, the sample is divided in the following four categories:

(1) Resident students now living in California;
(2) Resident students now living outside California;
(3) Nonresident students now living in California; and
(4) Nonresident students now living outside California.

A word of caution is in order. The Alumni Association member is not necessarily representative of the usual Berkeley alumnus. Further, there has been no analysis of the nonrespondents in this survey so that the respondents themselves may not be particularly representative. There is a distinct bias toward those currently residing in California. Hopefully, however, the differences between residents and nonresidents and their post-education migration patterns are not as a result seriously distorted.

In contrast to the individual who was a resident during attendance, the alumnus who was a nonresident:

more often is male,
was enrolled in business, a profession, or biological sciences (less often in the humanities and social sciences) as an undergraduate student,
was enrolled in the biological or MPE sciences[10]

(less often in business or the professions)
as a graduate student,
entered government employment (less often went into education),
less often had parents who had attended the University,
spent less time obtaining a degree (regardless of level),
as a graduate student, earned a greater portion of his college expenses,
reports a lower current income (when adjusted for age and years out of school), and
lower expectations of increase in that income.

The two individuals appear to be quite similar with respect to:
years they were on scholarship,
current type of occupation,
frequency of employment in private business, and
number of children.

5. California High School Seniors, Spring 1967

This analysis reveals marked differences in background and future plans on the part of those high school seniors planning to attend an institution of higher education in California as contrasted to their classmates who expected to go out of State for a higher education. Of the total sample, which exceeded 8,000 seniors, 64 percent planned to attend an institution in California, 3 percent planned to go out of state for their education, and 33 percent were not going to continue beyond high school. (See Table 17.)

In contrast to the high school senior planning to attend a California institution, the senior planning to attend an institution outside California:
more often has mother and father with education beyond high school,
has father in an executive or professional occupation (and self employed),
plans to attend a four-year institution but not transfer,
plans to live in a residence hall,
plans to rely upon loans and grants to finance his education (less often to work for his support),
has applied for financial aid,
expects to undertake a professional, managerial, or executive occupation, and
reports a significantly higher family income.

The latter result is consistent with similar findings regarding the family incomes of a SCOPE sample of 1966 high school seniors. (See Table 18). The parents of these individuals were questioned during the summer after the students' freshmen years. Those whose children attended non-California institutions reported significantly higher family incomes than those whose children had remained in California.

A greater percentage of the intended migrant high school seniors were eligible to attend the University. The propensity (and presumably ability) to migrate correlated positively with high school grade point average.

In addition, the individual planning to attend a non-California institution appears to:

more often be Caucasian,
have father who is employed, and
have been accepted in the school of his first choice.

However, none of these differences are significant. The two student types appear to be similar with regard to:

sex and
marital status.

## D. POST-EDUCATION MIGRATION PATTERNS

Few data are available which distinguish the migration patterns of resident and nonresident students after their education. The distinction is critical, however, if one wishes to examine the argument regarding the social returns a state may expect from investment in higher education. The social return (if there is any) from the educated individual accrues to California taxpayers primarily if that individual remains in California (though perhaps some indirect social return would accrue to California even if the individual migrated elsewhere).

Several independent sets of data are examined to obtain an idea of the relative frequency with which nonresident students stay in California as contrasted to resident students. We must point out that each data set represents a given point in time so that the absolute "staying" ratio may be misleading and, of course, none of the sets reveal migration patterns over a period of time. The data do, however, provide evidence as to migration relationships between the two student types in question.

Estimates for the rates of out-migration of individuals from California have been constructed recently by Weisbrod and Hansen.[11] Notably, only one-half of an original group is expected to still be residing in the State after twenty-five years. In this context,

the staying rates of the "Berkeley Alumni sample" (see Table 19, Appendix B) appear unrealistic. An average staying rate in excess of 80 percent for a population which is surveyed fifteen to twenty years beyond education is doubtless high. The sample is apparently biased toward individuals who have located in California. Whether this also distorts the relationship between the resident and nonresident student is yet another question, however. For the Berkeley Alumni sample, there is a significant difference in the rates at which residents and nonresidents have remained in California. The difference is significant for those individuals who have been either undergraduate or graduate students at Berkeley, but not for individuals who did their work at both levels on that campus. Surprisingly, those nonresidents who did both their undergraduate and graduate work at Berkeley stayed in California approximately 90 percent as often as did those residents undergoing similar education.

Results from the National Academy of Science (NAS) data on first-time job locations for Berkeley Ph.D.'s are quite similar although the staying rates are consistently lower than the Alumni sample. Between 1958 and 1968, 50 to 60 percent of Ph.D. recipients from Berkeley took their first job in California.

Of the Berkeley doctoral recipients who did their undergraduate work at Berkeley or at a California institution, the nonresident again stayed approximately 90 percent as often as did the resident with a similar education. In contrast, if undergraduate work was done elsewhere, then the nonresident stayed only about 70 percent as often. This is again consistent with the results of the Berkeley Alumni survey.

In addition, both sets of data suggest that if a California resident goes out of State for undergraduate training and returns for graduate work, he is more apt to subsequently remain in California than is that resident who does both undergraduate and graduate work at the University. This contrasts sharply with the pattern of nonresident attendance and migration.

The NAS data may also be examined for staying differentials exhibited by individuals in different disciplines. (See Table 20.) Among graduates in the agricultural sciences, professions, and psychology, more nonresidents took their first job in California than did residents although the differences are not significant. Residents stayed significantly more often than nonresidents in the following fields:

education,
arts and humanities,
social sciences,
chemistry,
engineering, and
mathematics.

Two sets of State College data are examined in Table 19. The first describes migration intentions stated by students enrolled in the spring 1967; the other data describe the actual summer 1969 location of 1968 and 1969 graduates of Fresno State College. The anticipated staying ratios for residents are high. The nonresident undergraduate intended to stay 77 percent as often as did his resident counterpart while at the graduate level the same measure was 58 percent "as often". Data from the Fresno State survey indicate that nonresidents (with various degree levels) actually stayed somewhat more often (80 percent as often as residents). The staying rates of both resident and nonresident in the Fresno State sample are considerably higher than Ph.D.'s from Berkeley. The differential between Fresno State resident and nonresident staying rates is somewhat less, however.

"Staying ratios" found in a 1964 study of the 1959 graduating class at the University of Colorado provides an interesting contrast to the results for California students (see Table 19). For both baccalaureate and advanced degree recipients, the University of Colorado nonresident stayed in that state about two-thirds as often as did the resident; and the difference was statistically significant. In general, the staying rates for both nonresidents and residents appear to be remarkably low. Less than one-half of all the former students surveyed were still located in the state after five years. Much lower student staying rates for Colorado than for California are not totally unexpected, however, in view of the significant general pattern of migration toward the west coast during the last decade, particularly during the early 1960's.

## CHAPTER IV

## VALUE OF STUDENT MIGRATION

### A. INTRODUCTION

The request for this study suggests the need to examine the question of what public value, if any, there is in the migration of students across state lines in pursuit of higher education, and, in particular, the value of those "nonresident" students who enter California.

The nonresident student may be viewed in the dual context of both national and state educational policies. The possible values of student migration which appear to be primarily national in character are examined below. Following this, there is a similar treatment of the values of student migration which would seem to accrue to a state, irrespective in part of nationwide policy concerns.

Obviously, a neat categorization of the possible benefits from student migration into those of "national" versus those of "state" concern is purely arbitrary and undertaken for purposes of exposition only. The social values of student migration likely accrue ultimately to all jurisdictions, not necessarily in an equal distribution.

The objectives of educating individuals from foreign countries appear quite different than those encountered with respect to interstate migration of United States students. Accordingly, the value of the "foreign student" is quite distinct from that of the "U.S. nonresident" and is examined separately in Chapter V. In addition, the notion of controlling the interstate migration of students poses certain legal questions both in terms of the definition of residence and the question of legitimate state policy objectives in classifying certain individuals as residents, others as nonresidents. The public policy implications are examined in part below. The legal aspects of the problem are taken up in Chapter VI.

### B. NATIONWIDE CONSIDERATIONS

From a national standpoint, the migration of students among the states may be explored under several related categories:

1. Educational opportunity,
2. Interstate tariffs and consumer (student) welfare,
3. Mobility of productive resources,
4. Provincialism in higher education, and
5. Migration balance.

In part, public support of higher education allows society to realize those social benefits (avoid those social costs) which would

not (would) result if the allocation of such education was left totally to be determined by the private market mechanism. In addition, public support is also necessary (1) to correct for difficulties individuals face in evaluating the merits of higher education, and (2) to provide the means for increasing economic and social opportunity for all citizens.

The individual faces considerable risk in his decision to invest in higher education. Even if a student does finish his education success is not certain. In 1967, for example, one-third of all college graduates earned less than the average high school graduate; 45 percent of those with five or more years of college actually earned less than the average individual with only four years of college. Further, individuals possess only partial information regarding the career opportunities open to them as a result of a college education. Such uncertainty and lack of information make it difficult, if not impossible, for many individuals to reach a rational decision regarding the merits of continuing their education beyond high school. Public support of higher education, in part, is thought to aid in reducing the level of risk facing the individual and his family in making this decision.

1. Educational Opportunity

Public support of higher education is also one means whereby government may correct for inequalities in the level of economic and social opportunity afforded its citizens. It is hoped that the provision of equal educational opportunity will result ultimately in a more equal distribution of economic and social opportunities for all citizens.

Data in Chapter III describe the nature of the migrant and support the popular notion that differentially higher nonresident charges limit the opportunity for interstate migration of undergraduates primarily to individuals from "upper" socio-economic backgrounds (i.e., socially placed families with higher than average incomes). Apparently, public investment to equalize opportunities for undergraduates results in such opportunities being pursued almost always in the home state of the individuals so aided. The differentially higher nonresident charge at the undergraduate level, therefore, is not totally consistent with a national public policy of equalizing educational opportunity. Analogous socio-economic differences do not appear to exist at the graduate level and may reflect, among other things, more liberal use of financial aids than in the case of the undergraduate nonresident along with generally comparable admissions requirements at the graduate level for both residents and nonresidents.

Opportunity for students to become educated and trained in specific fields may also be affected by differential nonresident charges. Putting it somewhat differently, increased opportunities in specialized fields may result from provision for the nonresident who

emigrates from those states where such specialized facilities do not exist. Barriers to such migration will decrease opportunity, if in the form of quotas, or restrict opportunities to certain socio-economic groups if higher charges or differential admissions policies are utilized. The existence of such migration barriers coincident with the desire to maintain opportunities in all fields would likely result in many states duplicating frequently expensive facilities and programs with small enrollment. Programs such as the School of Public Health at the University of California at Los Angeles, or School of Veterinary Medicine at the University of California at Davis would doubtless be more costly to society if offered in most of the western states, each program operating on a much smaller scale.

2. Interstate Tariffs and Consumer (Student) Welfare

It may also be argued that the nonresident fee or surcharge acts as an interstate tariff on the export (not import) of the "good," i.e., the education purchased by the individual who wishes to attend an institution out of state. This is clearly a case of price discrimination - charging different consumers different prices for the same good. Price discrimination may be desirable in certain cases when consumers may be subdivided into groups on the basis of homogeneous characteristics. For example, pursuit of social objectives such as equal educational opportunity result in differentially lower prices for those unable to pay for their education.

Similar price discrimination on the basis of geographical origin appears dubious. Theoretically, it can be shown in the national context that consumer (student) welfare may be increased by similar charges for all students without decreasing total revenue. In this sense, the action of the tariff is analagous to that of the excise tax.[11]

3. Mobility of Productive Resources

A recent United States Supreme Court decision (Shapiro vs. Thompson, etc.) held that residency requirements for welfare recipients denied free exercise of the right of interstate movement and violated the equal protection clause of the 14th Amendment to the United States Constitution. It would seem to be inconsistent public policy to simultaneously restrict the interstate movement of potentially productive individuals, i.e., the nonresident student, by increasing the barriers to such migration. This is especially crucial in an era when there seems to be an increasing tendency toward interstate migration on the part of the general population.

The question of interstate movement of students may also be related to the question of efficient functioning of the private competitive market. Competitive markets can only be perfect (and approach optimal resource allocation) if, among other things, there is perfect spacial mobility of labor. The restriction on interstate movement of future

productive resources, i.e., undergraduate and graduate students, results in a relative increase in the proportion of resident students. Based on available evidence, this tendency would likely result in less interstate movement of such resources subsequent to completion of their training; residents tend to remain in the state of their education more often than do nonresidents. This tendency may render markets generally more imperfect and less likely to result in optimal or near-optimal resource allocation. An obvious example of such a problem is an excessive labor cost in a region where labor is scarce and the region is unable to attract individuals with the necessary training because they do not wish to migrate from their present geographical location.

4. Provincialism in Higher Education

A decrease in student migration between states is thought to result in state systems of higher education becoming more "provincial" in character. To be provincial, according to Webster, is to be ". . . of local or restricted interests or outlook. . . ." While obviously highly subjective, a tendency of this sort would likely not be in the national educational interest.

5. Migration Balance

As noted in Chapter III, California has become a "heavy" net exporter of students to private institutions in other states and remains a slight net importer of individuals from other states who attend its public institutions. For all types of students California is a significant student exporter, particularly to other states in the Western Region.

California has also become a heavy net importer of educated labor, talent trained elsewhere.[12] This pattern is particularly true for the health professions. For example, 5.5 percent of the nation's medical students were in California schools during 1966, while by contrast, 12 percent of the practicing physicians in the U.S. were reported to be located in California.[13] The fact of net student export and talent import suggests that however subjective, California has an obligation in the national context to reciprocate in its policies toward the admission of nonresident students. If, for example, California further raises its already restrictive barriers to nonresidents by the imposition of quotas or tuition increases, this may well induce other states to do likewise (in their treatment of students immigrating from California). The degree of such retaliatory cause and effect is unknown. However, there is a suggestion that such retaliation may be occuring. For example, Oregon, a state to which California sent more than 5,000 students in 1968, recently imposed more restrictive nonresident policies. Quotas for the admission of first time freshmen nonresidents has been reduced by approximately one-half. Higher qualifying grade-point-averages and SAT scores are now required for admission of nonresidents and a

geographic priority set as follows:

1. The mountain states,
2. States east of the mountains,
3. California and Washington

Some institutions, however, do explicitly set their nonresident fees in light of similar charges in other states.[14] Retaliatory increases in barriers to student migration are not in the national interest if the other arguments against such barriers hold true.

C. STATE LEVEL CONSIDERATIONS

Forgetting for a moment the national concern regarding student migration, it seems that purely from the state's standpoint two major factors are of concern with respect to the value of nonresident student:

1. The improvement in educational programs due to the cultural diversity added by the presence of the nonresident; and
2. The possible social return to the state from the education of a nonresident.

1. Educational Diversity

The presence of the nonresident and his interaction both in and out of class with the resident student is thought to add considerable value to the educational process. Students from different states and regions introduce a diversity of backgrounds, viewpoints, and life styles which enhance the educational experience of all students. This element of diversity in a state system and the desire to prevent provincialism in education from the national standpoint are closely related.

Unfortunately, the "diversity value" cannot be described or measured in any more concrete fashion. Further, it may be argued that if nonresidents keep to themselves and do not interact with residents such value is severely diminished. It is possible that the recruitment of certain educationally disadvantaged individuals from within California may infuse greater cultural diversity into a student group than does the enrollment of culturally similar (to the resident) nonresident students from the West or other regions of the United States.

Most student migration occurs among contiguous states. For example, students from the three states of Oregon, Arizona and Nevada comprise 12 percent of California's nonresidents. It is possible that greater diversity value would result from a relatively greater immigration of students from other regions of the United States, i.e., the South and East.

There is considerable diversity even among California "resident" population. Some 52 percent of the resident population recorded in the 1960 census were born outside California.[15] Further, California has been among the top ten states in net migration of the general population in recent years although the growth rate appears to be tapering off somewhat.[16] The diversity argument may carry less weight for California than for other states whose populations are inherently more stable.

2. Social Return

Another argument advanced in favor of easing barriers to student migration is the belief that many nonresidents do remain to make a contribution to the economy of the state in which they are educated. Of course, one may question the contribution made by the nonresident student when certain areas of California are becoming overpopulated and underdeveloped and when the State contains surpluses of educated labor for certain occupations.

As noted in the analysis contained in Appendix C, the argument seems to center on the public investment and the social benefits which result from higher education. The consideration of private costs and benefits may be pushed into the background since the primary concern is the public's (California taxpayer's) investment in resident as opposed to nonresident students.

Public support of higher education allows society to realize those social benefits (avoid those social costs) which would not (would) result if the allocation of resources for higher education were left entirely to the private market mechanism. The obvious difficulty for the public policymaker is that of measuring even in a qualitative fashion these social benefits and costs. An attempt at a qualitative listing is contained in Appendix C.

The fact that public support accounts for approximately one-fourth of the average cost of educating individuals in public higher education institutions throughout the nation suggests that the social benefits do indeed exist. If they do not exist, policymakers have settled upon an extremely poor allocation of resources for higher education. Given their existence then, the major concern becomes the difference in social benefits less social costs, i.e., the "social return" which results from public investment in the education of the nonresident as opposed to the resident.

The social return (to a particular state) from a individual's education is largely forthcoming after his formal instruction is completed and for as long as he remains within the state. When he departs for another state it may be argued that subsequent social benefits which may be forthcoming as a result of his education will accrue primarily, if not entirely, to that other state. Therefore the important data become the differences in (1) the post-education

migration patterns of the two types of individuals and (2) the public cost of educating each type as partially determined by the difference in resident and nonresident charges.

It seems doubtful that social benefits are related to an individual's resident classification, i.e., geographical origin while a student. Rather, social benefits more likely are related to the level of education and perhaps background of the individual himself. It is probable that the social benefits accruing to society from the comparable education of two individuals of similar academic background are likely to be comparable in spite of the fact that one was a resident student while the other was classified as a nonresident.

It may be argued that a policy of encouraging the nonresident student to migrate to California and remain simply compounds the overpopulation and underdevelopment of certain areas in the state. Thus, the social benefit resulting from the resident's education would exceed that for the nonresident. Even in the absence of such a policy, however, California's population growth will continue. The State has been and likely will be among the top few states in terms of immigration (though in recent years, natural increase has replaced net in-migration as the principal component of population growth). The notion that immigrant students create greater social costs than social benefits due to the resulting congestion seems unlikely in view of the nature of the social benefits thought to result from higher education. In general, the growth in population and technology gives rise to a need for more educated labor than can be produced from the projected number of California residents.[17] The probability of a higher education-trained individual locating in California is greater if (1) he is educated as a nonresident student at a California institution than if (2) he is educated as a resident student in a state other than in California. Possible oversupply of trained individuals in certain fields normally will be accommodated in the usual fashion by the national labor market and result in such individuals emigrating to another state.

The investment of a California taxpayer in the education of a resident student currently amounts to from two to four times that expended for a nonresident, depending upon the level and segment, due to the wide differential in resident and nonresident charges. California student charges are characterized by one of the largest differentials between residents and nonresidents existing in any state in the nation. As noted in Chapter III, the public cost for a nonresident is approximately $900 less than that for a resident at one of the public four year institutions. Further, the evidence examined in Chapter III regarding post-education migration indicates that nonresidents attending California institution tend to stay in the state about three-fourths as often as do resident after completion of their education. (The range runs from 60 to 90 percent "as often" depending upon the level of education and the segment attended.) If such evidence is accurate, the expected value of the social return from educating an additional nonresident would exceed the same expected value from the education of

an additional resident. Thus, irrespective of national objectives, if maximizing the expected value of social return were the primary objective of California higher education then it would not be appropriate public policy to further increase those barriers now facing the nonresident student. Rather, a lowering of those barriers appears in order. The latter policy may be implemented by a reduction in the differential between nonresident student charges in California public institutions and student charges elsewhere; i.e., a decrease in the relative price charged to nonresidents in California public institutions. (This may be accomplished in part by an explicitly more liberal policy regarding nonresident tuition waivers.) The major consequence of this policy is likely to be both an absolute and a relative increase in nonresident enrollment. Another consequence may be a reduction in the existing differential between charges levied upon nonresidents and California residents. This reduction is not, however, the major objective of the policy described.

These policies may not be reasonably employed without limit, however. Obviously, as the relative charge to the nonresident decreases, the cost of his education to the California public increases and, as a result, the expected social return from his education may well decrease.

3. Educational Opportunity for Residents

The possible social and private cost of denying educational opportunity to California residents who are not able to continue their education if displaced by nonresidents is a major factor, particularly in the short term. In addition to accommodating the private demand on the part of residents and avoiding possible social costs, public support of higher education also accounts for (1) difficulties certain individuals may have in assessing the private benefits of education and (2) redistributing economic and social opportunities through the vehicle of providing equal educational opportunities for those who cannot afford to pay the entire cost of their education. There is an obvious danger in adopting a policy which would be so attractive to nonresidents that California public institutions are unable to accommodate the demand of residents and to provide equal opportunities to residents because of limitations in physical facilities.

California public policy is such that all resident undergraduates qualified (under very explicit admissions criteria) for admission to one or another of the public segments shall be provided such education at an appropriate segment.[18] No similar policy exists at the graduate level, at least not in explicit form. Therefore, student population adjustments may only be made within a "resident undergraduate enrollment constraint." This constraint is represented by the minimum level of resident enrollment below which significant numbers of residents, when diverted, are effectively denied an opportunity to continue their higher education. This "denial" occurs

because such individuals are unable or do not desire to attend another institution within California and are unable to pursue their education out-of-state. It is clearly not public policy that students be expected to pursue an out-of-state education even though some 46,000 Californians did so during 1968-69.

If the relative number of nonresidents in the four-segments were to be increased, for example, the number of residents potentially diverted under the above constraint is limited initially to first-time freshmen in the public four-year segments. It is obviously impossible to divert upper division or graduate students to community colleges. Approximately 35,000 will be enrolled at that level in the State Colleges and University during 1970-71. However, this total appears to exceed the total capability (so-called unused or overcapacity of approximately 20,000) of the total community college system to absorb diverted students.[19] There is also the difficulty of geographical matching diverted students with those districts where unused capacity may exist.

Aside from admissions policies, the major danger of nonresident attendance precluding the admission of residents appears to be at the undergraduate, and particularly lower division, level. At the graduate level, students are admitted to particular programs or departments in the order of their qualifications. Evidence indicates that existing capacity in many graduate programs would not be fully utilized if only residents were to be allowed admission.

A policy of changing student mix cannot generally be implemented in the short term of one year but rather must be planned for the medium or long term. This is due to the number and types of spaces physically available in the short term. It is not feasible to radically increase (in excess of planned levels) or change the mix of enrollment at an institution or system within one year. It may be possible by remodeling facilities to change the mix over two to three years. However, it generally takes four years or longer both to change mix and increase enrollment over previously planned levels. The notion of increasing the number and relative proportion of nonresident students is, therefore, a long-run policy which could well be undertaken with complementary increases in capacity for residents who eventually might otherwise be redirected or diverted.

In contrast, the opposite policy of decreasing nonresident enrollment may be implemented in the short-run. Of the several techniques for restricting student migration, the quota appears to be the most effective because it is a direct policy the consequences of which are clearly predictible. Increases in nonresident charges, on the other hand, may have the undesirable result of restricting opportunity for interstate migration to students from a particular socio-economic strata of society.

Nonresident tuition is often thought of simply in terms of being an additional revenue producer to support the operation of the

institution. The amounts of such tuition collected at the University ($10.4 million estimated for 1969-70) and State Colleges ($3.2 million) constitute 2.0 percent and 0.9 percent, respectively, of the operating income of these segments. While sufficient operating income is of major significance, the public investment aspect of higher education would seem to justify tuition policies based upon considerations of more than just the "obtaining more revenue to operate the program next year" type.

It appears that currently there is a short-run lack of spaces for residents at some public institutions in California. If this is true and if the results of this analysis of nonresidents is also correct, the suggested policy of "not further increasing, but in fact reducing, barriers" to nonresident attendance should be considered by the segments for long-run implementation.

In addition, California segments might well explore the possibility of reciprocal agreements, particularly with other western states, covering the migration of students in all fields of higher education. Such agreements would cover more than just certain specialized areas such as the exchange program in medical and related fields conducted by the Western Interstate Commission for Higher Education.[20]

Both the New England Board of Higher Education and Southern Regional Education Board have sponsored programs for many years under which students may attend institutions in other states without paying full nonresident tuitions. A small number of states and institutions employ reciprocal agreements regarding the interchange of students. The California State Colleges, for example, are authorized to engage in equal exchanges of students with colleges in other states.[21]

## CHAPTER V

## THE FOREIGN STUDENT

### A. INTRODUCTION

Several objectives are usually cited in justifying foreign students attendance at American institutions:

1. The education and training of individuals who normally return home to contribute to the economic and social improvement of a frequently less developed country, an indirect form of technical aid and assistance on the part of the United States to less developed nations.

2. The promotion of a better understanding and appreciation of the United States on the part of individuals from foreign countries.

3. The enhancement of the value of higher education for American students through meeting and knowing students with diverse backgrounds, viewpoints, and cultural styles.

The first two objectives are related to the national interest. All Americans participate in whatever benefits accrue from world understanding and international relations brought about by the presence of foreign students. The third effect is local in nature. In contrast to the other two, if the value of the educational process for both resident and nonresident alike is enhanced by the foreign student's presence, then it appears to be the state and its citizens who benefit directly and primarily. These notions suggest implications for the financial support of instructing foreign students, a topic to which we shall return below.

### B. THE NATIONAL INTEREST

The term "foreign student" covers an extremely heterogeneous group of individuals who exhibit widely differing ethnic and cultural backgrounds. For certain policy purposes, however, the foreign student may be categorized into two groups:

1. Those who are sponsored either by their government, the United States Government, a private organization, a foreign Educational institution, or some combination of these, and

2. Those who are not so sponsored.

It is estimated that the United States government, foreign governments, and private organizations support or sponsor in a financial way approximately 20 percent of the foreign student population or some

25,000 students in the United States during 1968-69.[22] Assurance of a satisfactory job upon completion of education and other incentives to return home are normal arrangments under such sponsorship. As a result of these policies it is estimated that as many as 90 percent of such "sponsored" students return to their home country following their education.[23]

The remaining four-fifths of foreign student population constitute the "unsponsored" individuals who through their own volition have come to the United States for a higher education. They plan to utilize their training in their own or another foreign country or have entered the United States with the intention of eventually becoming permanent citizens. These individuals make up the bulk of the 50,000 foreign students who indicated they were self-supporting during 1968-69.

The other major source of financial assistance for foreign students are the United States institutions they attend. Over 20 percent of foreign students receive some aid from this source. The higher education institution through its general resources (state taxes, if a public institution) and the foreign student himself (through direct tuition charges and foregone earnings) share the bulk of the costs of education. The U.S. government provides only nominal assistance to institutions for the costs of educating foreign students.

The technical aid effort implied by the education of these students is felt to be achieved only in the event the individual returns to his home country. It is a well known fact that many do not. In the NAS data (see Table 20, Appendix B), 40 percent of those foreign students who received their Ph.D.'s from Berkeley took their first job in a foreign country (that is, if they did not take their bachelor's work in a California institution). Of those who did their bachelor's work at some California institution, only 16 percent took first jobs in a foreign country. The probability of a foreign student returning home after undergoing both undergraduate and graduate education in the United States appears to be significantly less than the same probability of return by the student who attends only graduate school in this country.[24] This result and findings elsewhere support the common notion held by United States educators that the foreign individual planning to be educated in the United States more often returns to his home country if his training is at the graduate rather than undergraduate level.[25]

If a significant portion of the foreign student population does not return home, this may partially cancel the impact of other aid and assistance programs conducted by the United States. This apparently undesirable consequence must be tempered by another judgment, however; that is, how to compare the loss of benefit to the home country as opposed to the value of the exercise of individual freedom by the migrant.

C. EDUCATIONAL DIVERSITY

There is general agreement that the potential for an improved education resulting from diversified views and backgrounds of enrolled foreign students is significant. There is less than unanimous agreement, however, that this potential is realized in practice. Its realization depends, of course, upon the degree of interaction between the foreign and the American student, both in and out of the classroom.

A 1966 study at Indiana University found that friendships between American and foreign students arose primarily from informal meetings, not from formal campus activities.[26] This study further noted that Americans who were friendly with foreign students did "re-evaluate their attitude toward national and domestic policies" and took "a broader interest in national and international affairs. . . ." The frequency of such friendships is the issue in question. Responses to a nationwide 1966 survey indicated that three-fourths of all foreign students had a mixture of foreign and American friends or mostly American friends. Only 12 percent indicated their friends to be "mostly from their own country." It must be noted that this comparison was dominated by Europeans and Canadians enrolled mostly in northeastern institutions. Students from the Middle East, Asia and Africa reported the majority of their friendships were with their own countrymen and other foreign students, rather than Americans. Further, the longer foreign students remained in the United States, the more they tended to regard Americans as "prejudiced against foreign students like themselves."[27] The Indiana study indicated that American-foreign student friendships most often were formed among the students in the humanities, significantly less often among students in the biological and physical sciences. Americans friendly with foreign students tended to come more often from the Northeast and Southwest regions of the United States and significantly less often from the Middle States, West, and Southwest.

The 1969 study by the Institute of International Education indicates that most foreign undergraduates are enrolled in the humanities, followed by engineering and business administration. In contrast, the graduate foreign student enrolls most frequently in the physical and life sciences, followed by engineering and then social sciences. Humanities and business administration are significantly less often indicated as fields of study by the graduate foreign student.

Obviously there is little evidence that suggests any firm conclusions regarding the "diversity" value of foreign students. The potential is obvious but not susceptible to measurement. The degree to which this potential is realized is generally unknown.

D. CALIFORNIA'S INTEREST

For the past ten years the same ten states have enrolled more than half of all the foreign students taking work in the United States.

(See Table 21, Appendix B.) California has consistently led the nation in this regard. While estimates vary depending upon the survey source and method of counting students, it appears that California institutions enrolled nearly 20,000 foreign students in 1968-69, about 16 percent of the nationwide total of 120,000.

About one-half of the foreign students in California are from the Far East. The next most frequently reported international regions are Latin America and the Near and Middle East. This pattern contrasts to attendance patterns for other United States institutions. Most Canadians and Europeans are enrolled in Northeast or Middle West institutions. The bulk of foreign students in the Southern States come from Latin America.[28]

California public institutions enrolled from 11,000 to 13,000 foreign students in the fall of 1968, again depending upon the source of data. This figure represented one-fourth of all publicly enrolled foreign students across the country. The Community Colleges in California enrolled nearly 3,000 foreign students during the same year. Approximately 50 percent of foreign students at the University and State Colleges were enrolled at the graduate level.

The size of California's public investment in foreign student education is significant and apparently greater than any other state in the nation. The student currently pays an annual nonresident charge of $1,500 at the University and $360 at the State Colleges (the average charge per student in both segments is somewhat lower due to fee waivers). Total charges to foreign students in Community Colleges during 1968-69 are reported to have averaged $237 on an annual per capita basis. The remainder of the cost of educating the foreign student is supported entirely by the State or by the local taxpayer in the case of the Community Colleges.

While programs of higher education in California benefit to some degree from the above-mentioned diversity value of foreign students, the primary benefit of educating such students may accrue to the entire nation in terms of international relations objectives. The fact of California's disproportionate contribution to the fulfillment of such objectives suggests the not novel, but nonetheless valid, conclusion that the federal government should participate in the direct cost of educating foreign students. Total federal subsidy does not appear to be justified. This is due to the diversity value of the foreign student to California plus the fact (which apparently decreases the value of the program in national terms) that a number of foreign students will settle in California and presumably contribute to the State's economic and social well-being. In certain fields in which there is a manpower shortage this contribution may be extremely significant. For example, a significant portion of the manpower needs for physicians is filled by foreign doctors who spend several years in the United States obtaining specialized training not available in their home country. Many of these individuals work in hospitals and

constitute a significant part of the hospital labor force.

The overall conclusion appears to call for some degree of federal and State sharing in the public cost of educating foreign students.

E. OPPORTUNITIES FOR RESIDENTS

It may be argued that if there is a shortage of spaces in California institutions then certain residents may be effectively denied opportunity to continue their education if foreign students are enrolled in the absence of some other limiting policy. This is analogous to the situation with respect to United States nonresidents described in Chapter III. The arguments of national policy in that section regarding the undesirability of erecting barriers to student migration appear to hold here as well. However, the different impact upon both State and national policy of each type of nonresident has been duly noted. If it becomes necessary in the short run to limit foreign enrollment then certain priorities may be developed from the above discussion. For this purpose, the foreign population might be divided into the following four categories:

1. Sponsored graduate students
2. Sponsored undergraduate students.
3. Unsponsored graduate students
4. Unsponsored undergraduate students

The overall findings suggest that while the specifics of the individual case are always the primary criterion, the first general priority for admission would be afforded to Group 1. Group 4 would appear to command the least priority in gaining admission.

## CHAPTER VI

## RESIDENCE CLASSIFICATION

An evaluation of the "adoption of a student residency policy for out-of-state and foreign students similar to that used at Michigan State," as recommended by the Governor's Task Force, encompasses two concerns. One has to do with the economic and social desirability of further increasing the existing barriers to student immigration into California public institutions. This topic is covered in Chapters III, IV and V with the conclusion that it is not appropriate long-run policy to increase existing barriers to nonresident students. To the contrary, the results suggest that a gradual lessening in such barriers is in order. The other concern has to do with the legal implications of such a residency definition.

### A. DEFINITIONS OF RESIDENCY

In this section, we examine the residency definitions currently used in California and elsewhere in the nation along with the apparent legal implications of implementing a regulation like that used by Michigan State. The latter discussion includes an opinion by the Attorney General of California as to the constitutionality of such a regulation.

Residence is ordinarily thought to encompass a combination of both physical presence in a state and the intent to make one's permanent home in that state. Institutions of higher education vary greatly, however, in the criteria which they use for determining residence. In most instances, the major criterion applies to the length of residence in the state, with wives, emancipated minors, and aliens covered under separate regulations. Exceptions to the general criteria are frequently granted to military personnel and their dependents, institutional staff and their dependents, and graduate students. In those cases where student residency requirements differ from those for other purposes such as voting, the former are usually more restrictive than the latter, at least for purposes of applying nonresident charges. A number of states (among them, California) use different, normally less rigorous, determinations of residence for admissions purposes than for tuition purposes, however. (As noted in Chapter III, the nonresident is subjected to more demanding admissions qualifications in over 70 percent of institutions across the nation.)

The length of required residence varies. Of sixty-eight institutions questioned in a recent study, forty-two required one year of legal residence prior to becoming a "resident student"; sixteen a minimum residence of six months; and eight indicated the student became a

resident as soon as the parent established residence in the state -- no minimum period prescribed.[29]

Normally the residence of a minor is that of his parents or guardians unless he is emancipated, in which case his residence is determined in a manner like that of an adult.

The minor may gain or lose residence while in attendance if his parents or guardians change their state of residence. The residence of the wife generally follows that of her husband. In some cases this occurs immediately upon marriage; in other cases a waiting period of from six months to one year of marriage to a resident is required before a woman student may be classed as a resident for tuition purposes. Fifteen percent of the institutions surveyed in the above study indicated they required a waiting period.

The constitutionality of such a residency waiting period in California was challenged recently in a case, Kirk v. Board of Regents of the University of California, 273 A.C.A. 463 (May 28, 1968). The California Appeals Court ruled that such a regulation "classifying students as residents or nonresidents for tuition purposes was not arbitrary or unreasonable...." The decision further stated:

> Residents and nonresidents can be treated differently where there are valid reasons for doing so, and the privileges and immunities clause does not guarantee to petitioner the right to attend the university for the same fee as that charged to persons who have met the one-year residence requirement.

The adult or emancipated minor may establish his own residency after the usual waiting period. However, in most states he is required to establish domicile (legal residence) while not in attendance at the institution as a student. For example, Arkansas, Oklahoma, Colorado, Rhode Island, Tennessee, and West Virginia explicitly prohibit a nonresident adult from earning residence status while enrolled.[30] Among the states in exception to this regulation are Oregon and California where a nonresident adult may gain residence status (after one year as a legal resident) while attending a public institution, provided he evidences the intent to establish his permanent home in the state.

B. RESIDENCY IN CALIFORNIA

Public institutions of higher education in California determine residence generally in accordance with Sections 243 and 244 of the California Government Code.[31] Basically, a person is a "resident student," for tuition purposes, if he has been a bona fide resident of California for one year immediately preceding the opening day

of the term of attendance in the University and State Colleges. The statutes contain no such provision for the Community Colleges. As a result, at the discretion of the local district, an adult attending a Community College may be classified as a resident student immediately upon enrollment and without undergoing the one-year waiting period. Evidence indicates that classification practices vary from district to district with probable adverse fiscal implications for a number of the less-wealth districts.

Similar to the usual case in other states, legal residence in California requires both physical presence and intent to establish a permanent home in the State. Legal residence may be established by the parents of a minor, by an adult, or by the husband of a married woman. As noted, the adult may under certain conditions gain residence status while in attendance at a University or State College.

Beyond these basic provisions, the segments may grant certain exceptions. A minor living under the care and control of persons other than his parents may become a resident if those persons have been bona fide residents of the state for two years. Dependents of military personnel stationed in California and overseas (in the case of the State Colleges and Community Colleges) are eligible for a waiver of the nonresident tuition fee. Military personnel attending a Community College are eligible for such a waiver.

The State Colleges have statutory authority to waive the nonresident tuition fee for their staff and dependents of the staff. Community Colleges also have authority to exempt from the nonresident fee (1) students enrolled for six units or less and (2) foreign students.

The Michigan State University regulation suggested for adoption in California goes beyond the one-year waiting period and would result in adult students no longer being able to attain residency, for tuition purposes, while in attendance. The regulation reads in part:

> No one may gain or lose the status of a resident while a student at the University.

Except that,

> The residency of minors shall follow that of their legal guardian except where the guardianship has been established in the State obviously for the purpose of evading the fee....

The constitutionality of the Michigan State regulation has not yet been challenged. A similar regulation, employed by the Board of

Trustees of the Idaho State College was challenged in 1960. This regulation provided in part that:

> Any person who is properly classified as a non-resident student retains that status throughout continuous regular term attendance at any institution of higher learning in Idaho.

The Idaho Supreme Court in Newman v. Graham, 349 P.2d 716, held that this regulation was arbitrary, capricious, and unreasonable. The relevant portion of the Idaho Supreme Court decision is as follows:

> Under the interpretation placed upon the foregoing quoted regulation by the Board it would necessarily follow that a student who is a non-resident of the State at the time of initial enrollment at the College would, if he attends each regular term, retain such status throughout his entire college career irrespective of the fact that he may have become a bona fide resident and domiciled more than six months in the State during the intervening time. Under such interpretation it does not afford any opportunity to show a change of residential or domiciliary status and does in effect deny equality of opportunity to persons of the same class who are similarly situated and for that reason it is an unreasonable regulation. The authority of the Board, through its authorized agency or representative, to inquire into and ascertain an applicant's residential or domiciliary status is unquestioned. It is the denial to the applicant of an opportunity to be heard in the matter, within a reasonable time, that constitutes the objectionable feature of the regulation here considered.[32]

An opinion was solicited from the California Attorney General's office as to the constitutionality of California public institutions adopting a definition of residency similar to that of Michigan State University. (The full text of this opinion is contained in Appendix D.)

In his informal opinion, the Attorney General concludes that the Idaho Supreme Court correctly interpreted the constitutional issue in Newman v. Graham and that: "To deny one group of individuals, namely, those who enter an institution of higher education as non-residents, the opportunity to thereafter demonstrate a change in their residence status would constitute a violation of the equal protection of the laws provision of the United States Constitution."

NOTES

1. See U.S. Department of Commerce, Bureau of the Census, "Population Characteristics," Series P-20, No. 188, Washington, D.C., August 14, 1969.

2. These descriptions of student migration patterns are taken from C. S. Grossman, et. al., Migration of College and University Students in the United States, University of Washington Press, Seattle, 1968.

   The "regions" are as follows:

   New England Region
   - Connecticut
   - Maine
   - Massachusetts
   - New Hampshire
   - Rhode Island
   - Vermont

   Mideast Region
   - Delaware
   - District of Columbia
   - Maryland
   - New Jersey
   - New York
   - Pennsylvania

   Great Lakes Region
   - Illinois
   - Indiana
   - Michigan
   - Ohio
   - Wisconsin

   Plains Region
   - Iowa
   - Kansas
   - Minnesota
   - Missouri
   - Nebraska
   - North Dakota
   - South Dakota

   Southeast Region
   - Alabama
   - Arkansas
   - Florida
   - Georgia
   - Kentucky
   - Louisiana
   - Mississippi
   - North Carolina
   - South Carolina
   - Tennessee
   - Virginia
   - West Virginia

   Southwest Region
   - Arizona
   - New Mexico
   - Oklahoma
   - Texas

   Rocky Mountains Region
   - Colorado
   - Idaho
   - Montana
   - Utah
   - Wyoming

   Far West Region
   - Alaska
   - California
   - Hawaii
   - Nevada
   - Oregon
   - Washington

3. P. C. Chamberlain and D. A. Strand, The Role of Out-of-State Students in Public Higher Education, Bulletin of the School of Education, Indiana University, Volume 43, No. 6, November 1967.

4. See Council Study No. 1034, The Undergraduate Student and His Higher Education, June 1969.

5. Derived from report by Staff of Board of Governors of the California Community Colleges.

6. These data are derived from California Coordinating Council Study No. 1035, Student Charges, December 1969. All of the caveats of that document regarding the precision of such data hold true here.

   The public costs are solely those supported either by State or local taxpayers. A small amount of federal funds and private gifts also make up the cost of education related to student enrollment. Their inclusion would not seriously distort the relationships described here, however.

   The public cost of Community Colleges is a rather unsophisticated approximation based upon a current estimate of slightly more than $800 per student for current operations and a likely annual per-student capital cost of less than $300. Foregone earnings for the Community College-bound individual are assumed to be nearly the same as those of four-year students and the direct "out-of-pocket" costs (not including the subsistance costs that would be incurred even if the individual was not enrolled) are estimated at $200 annually.

7. Derived from information supplied by University and State College staff.

8. Based upon a significance level of at least 5 percent for the various tests of differences (chi-square, z, and f) among the sample populations. Adjustments for "continuity" are performed where necessary.

9. MPE sciences include mathematics, physics, and engineering.

10. W. Lee Hansen and Burton A. Weisbrod, "Benefits and Costs of Public Higher Education in California," A Report to the Joint Committee on Higher Education, California Legislature, November 1967.

11. This constitutes a very brief summary of the usual discriminatory tariff argument adapted to the nonresident. For a much more extensive rendition of this, see H. B. Baltz, "An Analysis of Some of the Economic Aspects Pertaining to the Out-of-State College Student with Particular Reference to Oklahoma," unpublished doctoral dissertation, Oklahoma State University, August 1964.

12. See Nicholas DeWitt, "Manpower Guidelines for Educational Policy Planning in the State of California," Report Prepared for the State Committee on Public Education, Berkeley, February 1968.

13. Report on "Medical Education in the United States," Journal of the American Medical Association, Vol. 202, No. 8, November 20, 1967, p. 827.

14. See Study by M. D. Kosaki, "Nonresident Students and the University of Hawaii," Report No. 3, Legislative Reference Bureau, University of Hawaii, January 1963.

15. See Nicholas DeWitt, op. cit.

16. See Department of Finance, California Population 1969, Sacramento, December 1969.

17. See Nicholas DeWitt, op. cit.

18. Appropriate in the sense that one would obviously not divert an upper division student to a Community College.

19. See Coordinating Council Study No. 1035, Student Charges, December 1969.

20. The WICHE Student Exchange program currently supports more than 100 students from western states who are taking health science instruction at California institutions. Payments to California institutions range from $1,000 for dental hygienists to $3,000 for medical students.

21. R. F. Carbone, "Resident or Nonresident?" Report No. 18, Education Commission of the States, Denver, March 1970.

22. See Institute of International Education, Open Doors 1969, Report on International Exchange, New York, September 1969.

23. See The Committee on the International Migration of Talent, "Modernization and the Migration of Talent," Education and World Affairs, New York, January 1970.

24. "Foreign Students in the United States, a National Survey," Report by the United States Advisory Commission on International Educational and Cultural Affairs, Washington, D.C., September 1966. In the NORC study, examined in Section II, 64 percent of foreign college seniors indicated they would eventually return to their home country.

25. Ibid.

26. See R. H. Shaffer and L. R. Dowling, Foreign Students and Their American Friends, Cooperative Research Project No. 5-0806, Indiana University, 1966.

27. United States Advisory Commission on International Educational and Cultural Affairs, op. cit.

28. Institute of International Education, op. cit.

29. North Carolina Board of Higher Education, "Report of a National Survey of Public Senior Institutions of Higher Education Concerning Classification, Tuition Charged, and Quotas of Out-of-State Students," Raleigh, North Carolina, February 1967.

30. Ibid.
See also Kosaki, op. cit.; and Carbone, op. cit.

31. For the specifics of California regulations see the Standing Orders of the Regents of the University of California (Chapter VI.8[b]); California State Colleges, Residence Pamphlet; California Government Code Sections 243 and 244; and various sections of the California Education Code.

32. Letter from California Attorney General's Office, October 3, 1968 (See Appendix D).

PROPOSED RESOLUTION

WHEREAS, The Coordinating Council for Higher Education requested in March 1968 that Council staff evaluate two recommendations of the Governor's Task Force on Efficiency and Economy pertaining to the nonresident student in California public higher education, and

WHEREAS, The Coordinating Council has received and considered the report of its staff concerning these recommendations, now therefore be it

RESOLVED, That the Coordinating Council for Higher Education adopt the attached policies relating to the nonresident student, which by reference become part of this resolution.

# POLICIES RELATING TO THE NONRESIDENT STUDENT IN CALIFORNIA PUBLIC HIGHER EDUCATION

1. Long-term policies should provide for a reduction in the barriers to student immigration from other states and foreign countries.

2. If in the short term it is necessary to arbitrarily limit nonresident enrollment due to a shortage of physical facilities, a quota system would be preferable to either more rigorous nonresident admissions requirements or further increases in nonresident tuition.

3. If arbitrary short-term quotas are used, the first priority for admission of nonresidents from other states should be afforded to the applicant for graduate work who has taken his undergraduate work at a California institution.

4. If arbitrary short-term quotas are used, the first priority for admission of foreign nonresidents should be afforded to those individuals who are "sponsored" either by a government, private organization, or foreign educational institution.

5. California authorities should seek federal sharing in the cost of educating foreign students.

6. The Board of Trustees of the California State Colleges should give consideration to the use of the same nonresident charge for both foreign students and nonresidents from other states.

7. The California residency regulation whereby an adult may achieve student residency while enrolled should be continued.

8. The Board of Governors of the California Community Colleges should seek legislation aimed at adoption of a consistent one-year waiting period for changing student residence status in the colleges, similar to that currently used in the State Colleges and University.

APPENDIX A

Governor's Task Force
Recommendations 7 and 8

Recommendation 7 Evaluate state support of out-of-state and foreign students.

This recommendation is intended to apply to all institutions of higher education.

The number of out-of-state and foreign students in the State Colleges totals more than the enrollment of several of the colleges.

In the fall of 1965, there were 3,628 students from other states, 2,439 students from foreign countries and 498 unspecified attending the State Colleges. Non-resident fees for the out-of-state students is $300 per semester (to be increased in 1967-68 to $360 per semester). For foreign students, it is $127.50 per semester. The estimated cost per FTE is now in excess of $1,300 for the two semester year.

To accommodate out-of-state and foreign students, new facilities are necessary. The non-resident fee covers less than half the cost of educating the student.

By charging a more realistic figure to other than residents of the state, income would be available to assist in accommodating resident students. In the event non-resident students were deterred by higher fees, expansion of facilities would be deferred until needed by California residents.

To give an idea of the financial input of increasing non-resident fees in the state colleges alone, if they were raised to $650 per semester, out-of-state, foreign and unspecified students, using 1965 figures, would constitute an additional $5-million annually.

Recommendation 8 Evaluate adoption of a student residency policy for out-of-state and foreign students similar to that used at Michigan State.

There is need in California to develop a more realistic definition for student residency. Presently, non-resident students come to this state and pay the non-resident fee for one year. The one year qualifies the student for residence and the remainder of his education is completed as a resident. Other states, such as Michigan, rule that a non-resident may not achieve residency while in college. Quotations from the Michigan policy follow:

> "It is the intent of Michigan State University to make every reasonable effort to correctly classify students concerning their status of residency. In this spirit

the following regulations approved by the Michigan State University Board of Trustees are set forth as the major points which govern in the determination of the status of residency and the question of payment of out-of-state tuition:

."No one shall be deemed a resident of Michigan for the purpose of registering in Michigan State University unless he has resided in this state six months immediately preceding his first enrollment.

."No one may gain or lose the status of resident while a student at the University.

."The residency of minors shall follow that of their legal guardian except where the guardianship has been established in the State obviously for the purpose of evading the fee.

."Aliens who have secured the Declaration of Intent papers and have otherwise met the requirements for residence shall be considered residents.

."The residence of any person, other than a parent or legal guardian, who may furnish funds for payment of University fees, shall in no way affect the residence of the student."

Adoption of such a policy would at least double the income anticipated in the previous recommendation.

APPENDIX B

Table 1

1968 Student Migration in Higher Education
Fifty States and Washington D.C.
(Minus Hawaii, Alaska)

| | Total Enrollment | Migrants | Percent Migrants of Total Enrollment | Foreign | Percent Foreign of Total |
|---|---|---|---|---|---|
| PUBLIC | | | | | |
| Undergraduate | 4,034,046 | 311,318 | 7.7% | 19,544 | 0.5% |
| Graduate | 521,366 | 97,810 | 18.8 | 26,789 | 5.1 |
| Total | 4,555,412 | 409,128 | 9.0 | 46,333 | 1.0 |
| PRIVATE | | | | | |
| Undergraduate | 1,625,877 | 561,102 | 34.5% | 34,388 | 2.1% |
| Graduate | 278,483 | 72,415 | 26.0 | 18,303 | 6.6 |
| Total | 1,904,360 | 633,517 | 33.3 | 52,691 | 2.8 |
| TOTAL | | | | | |
| Undergraduate | 5,659,923 | 872,420 | 15.4% | 53,932 | 1.0% |
| Graduate | 799,849 | 170,225 | 21.3 | 45,092 | 5.6 |
| Total | 6,459,772 | 1,042,645 | 16.1 | 99,024 | 1.5 |

Table 2

Thirty Year Migration Pattern of Students
in Higher Education, United States
1938 to 1968

| | Migrants | Percent Migrants of Total Enrollment |
|---|---|---|
| TOTAL | | |
| 1968 | 1,042,645 | 16.1% |
| 1963 | 750,690 | 18.2 |
| 1958 | 528,663 | 18.5 |
| 1949 | 496,921 | 20.0 |
| 1938 | 236,444 | 19.4 |
| PUBLIC | | |
| 1968 | 409,128 | 9.0 |
| 1963 | 256,396 | 10.0 |
| 1958 | 168,530 | 10.1 |
| 1949 | 151,302 | 12.0 |
| PRIVATE | | |
| 1968 | 633,517 | 33.3 |
| 1963 | 494,294 | 31.7 |
| 1958 | 360,133 | 29.6 |
| 1949 | 345,619 | 28.1 |

SOURCE: For Tables 1 and 2, preliminary 1968 migration data from U.S. Office of Education; C. S. Gossman, etc., Migration of College and University Students in the United States, University of Washington Press, Seattle, 1968.

Table 3

California Student In- and Out-migration, in Relation to
Rocky Mountain and Far Western States, and All Other, Fall 1968

| | Public and Private Institutions | | | Public Institutions | | | Private Institutions | | |
|---|---|---|---|---|---|---|---|---|---|
| | Coming From | Going to | Net | Coming From | Going to | Net | Coming From | Going to | Net |
| CONTIGUOUS WESTERN STATES | | | | | | | | | |
| Oregon | 2,075 | 5,032 | - 2,957 | 739 | 3,012 | -2,273 | 1,336 | 2,020 | - 684 |
| Nevada | 914 | 1,031 | - 117 | 438 | 1,031 | - 593 | 476 | -0- | + 476 |
| Arizona | 2,278 | 3,472 | - 1,194 | 799 | 3,317 | -2,518 | 1,479 | 155 | +1,324 |
| Total | 5,267 | 9,535 | - 4,268 | 1,976 | 7,360 | -5,384 | 3,291 | 2,175 | +1,116 |
| WESTERN STATES | | | | | | | | | |
| Washington | 2,541 | 3,704 | - 1,163 | 906 | 2,049 | -1,143 | 1,635 | 1,655 | - 20 |
| Idaho | 478 | 957 | - 479 | 234 | 432 | - 198 | 244 | 525 | - 281 |
| Montana | 373 | 354 | + 19 | 174 | 280 | - 106 | 199 | 74 | + 125 |
| Wyoming | 187 | 206 | - 19 | 112 | 206 | - 94 | 75 | -0- | + 75 |
| Utah | 617 | 5,837 | - 5,220 | 347 | 1,155 | - 808 | 270 | 4,682 | -4,412 |
| Colorado | 1,333 | 2,501 | - 1,168 | 539 | 1,710 | -1,171 | 794 | 791 | + 3 |
| New Mexico | 664 | 636 | + 28 | 383 | 604 | - 221 | 281 | 32 | + 249 |
| Hawaii | 2,355 | 826 | + 1,529 | 1,186 | 678 | + 508 | 1,169 | 148 | +1,021 |
| Alaska | 280 | 102 | + 178 | 170 | 92 | + 78 | 110 | 10 | + 100 |
| Total | 8,828 | 15,123 | - 6,295 | 4,051 | 7,206 | -3,155 | 4,777 | 7,917 | -3,140 |
| Total 12 Western States | 14,095 | 24,658 | -10,563 | 6,027 | 14,566 | -8,539 | 8,068 | 10,092 | -2,024 |
| Other 37 states and Washington D.C. | 28,732 | 21,330 | + 7,402 | 17,313 | 7,414 | +9,899 | 11,419 | 13,916 | -2,497 |
| Total all states and Washington D.C. (including outlying areas) | 42,827 | 45,988 | -3,161 | 23,340 | 21,980 | +1,360 | 19,487 | 24,008 | -4,521 |

SOURCE: Preliminary 1968 Fall Migration data from the U.S. Office of Education.

Table 4

California Higher Education
Student Migration
1938 - 1968

| | Total Migrants | Net Migrants | Rank (Among States as to Degree of In-migration) |
|---|---|---|---|
| TOTAL | | | |
| 1968 | | | |
| "coming from other states" | 42,827 | | |
| "going to other states" | 45,988 | -3,161 | |
| 1968 | | -3,161 | NA |
| 1963 | | 322 | 31 |
| 1958 | | 2,692 | 11 |
| 1949 | | 897 | 19 |
| 1938 | | 3,373 | 7 |
| PUBLIC | | | |
| 1968 | | | |
| "coming from other states" | 23,340 | | |
| "going to other states" | 21,980 | +1,360 | |
| 1968 | | +1,360 | NA |
| 1963 | | 3,856 | 7 |
| 1958 | | 3,759 | 4 |
| 1949 | | 268 | 23 |
| PRIVATE | | | |
| 1968 | | | |
| "coming from other states" | 19,487 | | |
| "going to other states" | 24,008 | -4,521 | |
| 1968 | | -4,521 | NA |
| 1963 | | -3,534 | 41 |
| 1958 | | -1,067 | 29 |
| 1949 | | 629 | 17 |

SOURCE: See Table 1.

Table 5

Comparison of Student Migration
California and Other States
1968, 1963, 1958

| | California | | U.S. (other than California) | | California As Percent of Total U.S. |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| 1968 | | | | | |
| PUBLIC | | | | | |
| Resident | 676,200 | 95.2% | 3,428,166 | 88.6% | 16.5% |
| U.S. Non-Resident | 23,340 | 3.3 | 406,720 | 10.5 | 5.4 |
| Foreign | 10,998 | 1.5 | 35,073 | 0.9 | 23.9 |
| Total | 710,538 | | 3,869,959 | | 15.5 |
| PRIVATE | | | | | |
| Resident | 86,718 | 77.7 | 1,133,710 | 63.2 | 7.1 |
| U.S. Non-Resident | 19,487 | 17.5 | 618,367 | 34.4 | 3.1 |
| Foreign | 5,406 | 4.8 | 43,612 | 2.4 | 11.0 |
| Total | 111,611 | | 1,795,689 | | 5.9 |
| TOTAL | | | | | |
| Resident | 762,918 | 92.8 | 4,561,876 | 80.5 | 14.3 |
| U.S. Non-Resident | 42,827 | 5.2 | 1,025,087 | 18.1 | 4.0 |
| Foreign | 16,404 | 2.0 | 78,685 | 1.4 | 17.3 |
| Total | 822,149 | | 5,665,648 | | 12.7 |
| 1963 | | | | | |
| PUBLIC | | | | | |
| Resident | 458,213 | 94.5 | 1,860,322 | 87.2 | 19.76 |
| U.S. Non-Resident | 19,020 | 4.0 | 244,472 | 11.5 | 0.7 |
| Foreign | 7,453 | 1.5 | 29,670 | 1.3 | 20.1 |
| Total | 484,686 | | 2,134,464 | | 18.5 |
| PRIVATE | | | | | |
| Resident | 66,272 | 78.0 | 998,440 | 65.9 | 6.2 |
| U.S. Non-Resident | 15,096 | 17.9 | 484,701 | 32.0 | 3.0 |
| Foreign | 3,484 | 4.1 | 31,907 | 2.1 | 9.8 |
| Total | 84,852 | | 1,515,048 | | 5.3 |
| TOTAL | | | | | |
| Resident | 524,485 | 92.0 | 2,859,392 | 78.3 | 15.5 |
| U.S. Non-Resident | 34,116 | 6.0 | 728,543 | 20.0 | 4.5 |
| Foreign | 10,937 | 2.0 | 61,577 | 1.7 | 15.1 |
| Total | 569,538 | | 3,649,512 | | 13.5 |

Table 5 (Continued)

| | California | | U.S. (other than California) | | California As Percent of Total U.S. |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| 1958 | | | | | |
| PUBLIC | | | | | |
| Resident | 220,522 | 92.8% | 1,250,843 | 87.6% | 14.9% |
| U.S. Non-Resident | 12,749 | 5.4 | 157,241 | 11.0 | 7.5 |
| Foreign | 4,452 | 1.8 | 19,367 | 1.4 | 18.7 |
| Total | 237,723 | | 1,427,451 | | 14.3 |
| PRIVATE | | | | | |
| Resident | 53,580 | 81.0 | 801,660 | 68.1 | 6.3 |
| U.S. Non-Resident | 10,147 | 15.4 | 350,947 | 29.8 | 2.8 |
| Foreign | 2,389 | 3.6 | 25,066 | 2.1 | 8.7 |
| Total | 66,116 | | 1,177,673 | | 5.3 |
| TOTAL | | | | | |
| Resident | 274,102 | 90.2 | 2,052,503 | 78.8 | 11.8 |
| U.S. Non-Resident | 22,896 | 7.5 | 508,188 | 19.5 | 4.3 |
| Foreign | 6,841 | 2.3 | 44,433 | 1.7 | 13.3 |
| Total | 303,839 | | 2,605,124 | | 10.4 |

SOURCE: Student migration data, U.S. Office of Education.

Table 6

Comparison of Student Migration,
California and Other States,
by Type of Institution, 1963

| | California | | U.S. (other than California) | | California As Percent of Total U.S. |
|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | |
| PUBLIC | | | | | |
| Resident | 458,213 | 94.5% | 1,860,322 | 87.2% | 19.8% |
| U.S. Non-Resident | 19,020 | 4.0 | 244,472 | 11.5 | 7.2 |
| Foreign | 7,453 | 1.5 | 29,670 | 1.3 | 20.1 |
| Total | 484,686 | 100.0% | 2,134,464 | 100.0% | 18.5 |
| Four-Year University | | | | | |
| Resident | 54,440 | 83.5 | 907,365 | 82.4 | 5.7 |
| U.S. Non-Resident | 7,284 | 11.2 | 170,250 | 15.5 | 4.1 |
| Foreign | 3,501 | 5.4 | 24,023 | 2.1 | 12.7 |
| Total | 65,225 | 100.0 | 1,101,638 | 100.0 | 5.6 |
| Four-Year College | | | | | |
| Resident | 128,362 | 96.5 | 709,147 | 91.5 | 15.3 |
| U.S. Non-Resident | 2,770 | 2.1 | 60,919 | 7.9 | 4.3 |
| Foreign | 1,922 | 1.4 | 4,572 | 0.6 | 29.6 |
| Total | 133,054 | 100.0 | 774,638 | 100.0 | 14.7 |
| Two-Year College | | | | | |
| Resident | 275,411 | 96.2 | 243,810 | 94.5 | 53.0 |
| U.S. Non-Resident | 8,966 | 3.1 | 13,003 | 5.0 | 40.8 |
| Foreign | 2,030 | 0.7 | 1,375 | 0.5 | 59.6 |
| Total | 286,407 | 100.0 | 258,188 | 100.0 | 52.6 |
| PRIVATE | | | | | |
| Resident | 66,272 | 78.0 | 998,440 | 65.9 | 6.2 |
| U.S. Non Resident | 15,096 | 17.9 | 484,701 | 32.0 | 3.0 |
| Foreign | 3,484 | 4.1 | 31,907 | 2.1 | 0.2 |
| Total | 84,852 | 100.0 | 1,515,048 | 100.0 | 5.3 |

SOURCE: Student migration data, U.S. Office of Education

Table 7

Average Resident and Nonresident Student Charges,
Public and Private Institutions of Higher Education,
1956-57, 1962-63, 1966-67

| | Public | | | Private | | |
|---|---|---|---|---|---|---|
| | Resident Student Charge | Nonresident Student Charge | Ratio (Nonresident / Resident) | Student Charge | Ratio (Private / Public Resident) | Ratio (Private / Public Nonresident) |
| UNIVERSITIES | | | | | | |
| 1956-57 | $197 | $425 | 2.2 | $ 642 | 3.3 | 1.5 |
| 1962-63 | 268 | 609 | 2.3 | 1,038 | 3.9 | 1.7 |
| 1966-67 | 360 | 808 | 2.2 | 1,456 | 4.0 | 1.8 |
| Ten-year (57-67) % increase | 82.7% | 90.1% | | 126.8% | | |
| Four-year (63-67) % increase | 34.3% | 32.7% | | 40.3% | | |
| FOUR-YEAR COLLEGES | | | | | | |
| 1956-57 | $121 | N/A | N/A | $ 528 | 4.4 | N/A |
| 1962-63 | 188 | $426 | 2.3 | 663 | 3.5 | 1.6 |
| 1966-67 | 259 | 570 | 2.2 | 1,162 | 4.5 | 2.0 |
| Ten-year (57-67) % increase | 114.9% | N/A | | 119.9% | | |
| Four-year (63-67) % increase | 37.8% | 33.8% | | 75.3% | | |
| TWO-YEAR COLLEGES | | | | | | |
| 1956-57 | $120 | $271 | 2.3 | $ 384 | 3.2 | 1.4 |
| 1962-63 | 113 | 334 | 3.0 | 502 | 4.4 | 1.5 |
| 1966-67 | 121 | 446 | 3.7 | 845 | 6.9 | 1.9 |
| Ten-year (57-67) % increase | 0.8% | 64.6% | | 120.1% | | |
| Four-year (63-67) % increase | 7.1% | 33.5% | | 68.3% | | |

SOURCES:
Student Charges, U.S. Office of Education (various years).

Table 8

Distribution of Enrollment by Residence, University of California, 1968-69, 1969-70, 1970-71

| | Fall Enrollment (based upon point of origin) | Distribution | Annual Enrollment (residency for tuition purposes) | Distribution |
|---|---|---|---|---|
| 1968-69 | | | (Actual) | |
| Undergraduate resident | 63,763 | .65 | 62,545 | .65 |
| U.S. nonresident | 3,258 | .03 | | |
| Foreign nonresident | 1,052 | .01 | | |
| (total nonresident) | (4,293) | (.04) | (4,138) | (.04) |
| Graduate resident | 20,373 | .21 | 24,465 | .25 |
| U.S. nonresident | 7,069 | .07 | | |
| Foreign nonresident | 3,265 | .03 | | |
| (total nonresident) | (10,312) | (.10) | (5,547) | (.06) |
| Total | 98,780 | | 96,695 | |
| 1969-70 | | | (Revised Budget) | |
| Undergraduate resident | 68,852 | .65 | 67,584 | .65 |
| U.S. nonresident | 3,329 | .03 | | |
| Foreign nonresident | 1,041 | .01 | | |
| (total nonresident) | (4,370) | (.04) | (3,866) | (.04) |
| Graduate resident | 22,277 | .21 | 25,893 | .25 |
| U.S. nonresident | 7,136 | .07 | | |
| Foreign nonresident | 3,400 | .03 | | |
| (total nonresident) | (10,536) | (.10) | (6,145) | (.06) |
| Total | 106,035 | | 103,488 | |
| 1970-71 | | | (Estimated Budget) | |
| Undergraduate resident | NA | NA | 70,020 | .66 |
| U.S. nonresident | NA | NA | | |
| Foreign nonresident | NA | NA | | |
| (total nonresident) | NA | NA | (3,971) | (.04) |
| Graduate resident | NA | NA | 26,297 | .25 |
| U.S. nonresident | NA | NA | | |
| Foreign nonresident | NA | NA | | |
| (total nonresident) | NA | NA | (6,076) | (.05) |
| Total | NA | NA | 106,364 | |

SOURCE: Derived from report by Universitywide Budget Office; Statistical Summary of Students and Staff, Office of Analytical Studies, University of California (various issues).

Table 9

Distribution of Enrollment by Residence,
California State Colleges,
1967-68 through 1970-71

| | Full Time Equivalents[1] | Distribution[1] |
|---|---|---|
| 1967-68 (Actual) | | |
| Residents | 141,942 | .963 |
| U. S. Nonresidents | 2,695 | .018 |
| Foreign Nonresidents | 2,724 | .019 |
| (total nonresidents) | (5,419) | (.037) |
| Total | 147,361 | |
| 1968-69 (Actual) | | |
| Residents | 161,441 | .970 |
| U. S. Nonresidents | 1,942 | .011 |
| Foreign Nonresidents | 3,081 | .019 |
| (total nonresidents) | (5,023) | (.030) |
| Total | 166,464 | |
| 1969-70 (Estimated) | | |
| Residents | 174,559 | .968 |
| U. S. Nonresidents | 2,327 | .013 |
| Foreign Nonresidents | 3,504 | .019 |
| (total nonresidents) | (5,831) | (.032) |
| Total | 180,390 | |
| 1970-71 (Estimated) | | |
| Residents | 191,394 | .969 |
| U. S. Nonresidents | 2,215 | .011 |
| Foreign Nonresidents | 3,901 | .020 |
| (total nonresidents) | (6,116) | (.031) |
| Total | 197,510 | |

1. This must be considered an approximation since, strictly speaking, the FTE reported for nonresidents is not derived in the same way as the total FTE figure; and, the resident figure (here) is simply the difference between the two.

SOURCE: Office of the Chancellor, California State Colleges; State of California, Governor's Budget, 1970-71.

Table 10

Resident and Nonresident Charges,
University of California and ASULGC,
1963 - 1970

| Year | ASULGC Resident Charge Mean | ASULGC Resident Charge Median | ASULGC Nonresident Charge Mean | ASULGC Nonresident Charge Median | ASULGC Annual % Change in Nonresident Median | ASULGC Ratio Nonresident to Resident Medians | UC Charge Resident | UC Charge Nonresident | UC Annual % Change in Nonresident Charge | UC Ratio Nonresident to Resident Charge |
|---|---|---|---|---|---|---|---|---|---|---|
| 1962-63 | $290 | $260 | $ 601 | $ 570 | -- | 2.19 | $171 | $ 552 | -- | 3.23 |
| 1963-64 | 271 | 282 | 613 | 586 | 2.8% | 2.08 | 208 | 808 | 46.4% | 3.88 |
| 1964-65 | 285 | 300 | 653 | 620 | 5.8 | 2.07 | 220 | 820 | 1.5 | 3.73 |
| 1965-66 | 307 | 315 | 726 | 724 | 16.8 | 2.30 | 220 | 1,020 | 24.4 | 4.64 |
| 1966-67 | 341 | 330 | 790 | 764 | 5.5 | 2.32 | 245 | 1,005 | - 1.5 | 4.10 |
| 1967-68 | 363 | 352 | 848 | 840 | 9.9 | 2.39 | 248 | 1,227 | 22.1 | 4.95 |
| 1968-69 | 400 | 360 | 902 | 940 | 11.9 | 2.61 | 325 | 1,525 | 24.3 | 4.69 |
| 1969-70 | 450 | 435 | 1,015 | 1,044 | 11.1 | 2.40 | 325 | 1,525 | 0.0 | 4.69 |

SOURCE: ASULGC Bulletins.

Table 11

Resident and Nonresident Charges,
California State Colleges and AASCU
1967 - 1970

| Year | AMERICAN ASSOCIATION OF STATE COLLEGES AND UNIVERSITIES | | | | | | CALIFORNIA STATE COLLEGES | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Resident Charge | | Nonresident Charge | | Annual % Change in Nonresident Median | Ratio Nonresident to Resident Medians | Charge | | Annual % Change in Non-resident Charge | Ratio Nonresident to Resident Charge |
| | Mean | Median | Mean | Median | | | Resident | Non-resident | | |
| 1966-67 | $250 | $250 | $524 | $ 556 | -- | 2.22 | $101 | $ 620 | -- | 6.14 |
| 1967-68 | 272 | 265 | 616 | 610 | 9.7 | 2.30 | 116 | 814 | 31.3 | 7.02 |
| 1968-69 | 306 | 330 | 709 | 710 | 16.4 | 2.15 | 116 | 999 | 22.7 | 8.61 |
| 1969-70 | 344 | 360 | 801 | 810 | 14.1 | 2.25 | 137 | 1,025 | 2.6 | 7.48 |

SOURCE: AASCU Bulletins.

Table 12

Comparison of Resident and Nonresident Students,
University of California, Spring 1967

| Characteristic | Undergraduate | | | | Graduate | | | |
|---|---|---|---|---|---|---|---|---|
| | Resident | U.S. Non-Resident | Foreign Student | $X^2$ (Z) | Resident | U.S. Non-Resident | Foreign Student | $X^2$ (Z) |
| Age (ratio below 25 yrs. old) | .92 | .96 | .70 | 12.15** | .62 | .81 | .51 | 45.21** |
| Sex (ratio of males) | .54 | .53 | .72 | 14.10** | .72 | .72 | .83 | 9.22** |
| Race (ratio of caucasian) | .94 | .94 | .42 | 240.94** | .95 | .93 | .42 | ** |
| Living Situation (ratio with parents or guardians) | .24 | .08 | .10 | 99.82** | .10 | .01 | .02 | 93.23** |
| Marital Status (ratio single) | .90 | .94 | .90 | 1.17 | .42 | .61 | .54 | 60.55** |
| Father's Occupation (ratio in "professional or executive occupations") | .49 | .62 | .49 | 21.05** | .43 | .44 | .43 | n.s. |
| Father's Education (ratio high school education or less) | .34 | .27 | .42 | 14.97** | .45 | .43 | .51 | 4.95 |
| Family Income (average annual $) | $13,900 | $15,300 | $10,500 | (*) | $12,000 | $12,000 | $5,700 | (*) |
| Total cost of attendance (average annual $) | $ 2,013 | $ 3,120 | $ 3,216 | (*) | $ 3,396 | $ 3,924 | $3,594 | (*) |
| Sample N | 22,702 | 708 | 229 | | 6,669 | 656 | 616 | |

* Significant at .05 level.
** Significant at .01 level.
n.s. Not significant.
SOURCE: Derived from Spring 1967 Enrolled Student Survey, University of California (Berkeley excluded).

Table 13

Comparison of Resident and Nonresident Students,
California State Colleges, Spring 1967

| Characteristic | Undergraduate | | | Graduate | | |
|---|---|---|---|---|---|---|
| | Resident | Non-Resident | $X^2$ (Z) | Resident | Non-Resident | $X^2$ (Z) |
| Age (average in years) | 22.9 | 23.0 | -- | 30.4 | 28.0 | -- |
| Sex (ratio male) | .55 | .68 | 6.68** | .57 | .66 | 1.49 |
| Race (ratio caucasian) | .93 | .76 | 6.91** | .92 | .77 | 2.61 |
| Living Situation (ratio with parents or guardians) | .37 | .09 | 51.02** | .11 | .05 | 3.22 |
| Marital Status (ratio single) | .71 | .78 | 1.82 | .31 | .54 | 17.05* |
| Financial Self-support (ratio claimed as dependent by parents) | .63 | .45 | 11.45** | .16 | .16 | 0.21 |
| Father's Occupation (ratio in professional or managerial category) | .44 | .55 | 6.30** | .43 | .52 | 1.76 |
| Father's Education (ratio high school or less education) | .54 | .47 | 2.01 | .62 | .48 | 3.58 |
| Family Income (average annual) | $12,493 | $12,679 | (n.s.) | $12,942 | $12,415 | (n.s.) |
| Total Cost of Attendance (annual average) | $ 1,347 | $ 1,943 | (*) | $ 1,035 | $ 1,920 | (*) |
| College Grade Point Average (cummulative, 4 point scale) | 2.53 | 2.42 | 2.29* | 2.8 | 2.67 | 1.67 |
| Sample N | 8,173 | 240 | -- | 2,779 | 110 | -- |

*Significant at .05 level.
**Significant at .01 level.
n.s.Not significant.
SOURCE: Derived from State College Financial and Demographic Survey Data, Spring 1967.

Table 14

Comparison of Resident and Nonresident
College Seniors, Public and Private Institutions,
Non California, Spring 1961

| Characteristic | Public | | | Private | | |
|---|---|---|---|---|---|---|
| | Resident | Non-Resident | $X^2$ (Z) | Resident | Non-Resident | $X^2$ (Z) |
| Age (ratio below 25 yrs. old) | .82 | .67 | 33.7* | .87 | .91 | 8.7* |
| Sex (ratio males) | .59 | .65 | 9.2* | .61 | .55 | 16.02* |
| Marital Status (ratio single) | .69 | .60 | 17.3* | .82 | .88 | 12.2* |
| Race (ratio caucasian) | .94 | .94 | 0.02 | .99 | .99 | 0.00 |
| Religion (ratio reared Protestant, | .71 | .73 | 0.60 | .51 | .66 | 127.1* |
| now [1961] Protestant) | .64 | .65 | 0.05 | .46 | .56 | 77.1* |
| (ratio, no religion as freshman, | .028 | .035 | -- | .013 | .022 | -- |
| no religion as senior) | .103 | .122 | -- | .082 | .118 | -- |
| Father's Education (ratio high school or or less) | .66 | .52 | 44.24* | .59 | .36 | 321.14* |
| Mother's Education (ratio high school or less) | .68 | .57 | 29.23* | .66 | .43 | 270.82* |
| Father's Occupation (ratio in professional, proprietor or managerial occupation) | .44 | .56 | 40.72* | .53 | .69 | 148.73* |
| Family Income (annual mean average) | $8,512 | $10,718 | (11.9)* | $9,989 | $13,155 | (22.9)* |
| Major Field (ratio in each: | | | | | | |
| Education | .37 | .24 | -- | .19 | .15 | -- |
| Business | .13 | .13 | -- | .15 | .08 | -- |
| Soc. Sci. | .07 | .09 | -- | .12 | .17 | -- |
| Humanities | .09 | .12 | -- | .19 | .25 | -- |
| Bio. Sci. | .03 | .04 | -- | .05 | .05 | -- |
| Phy. Sci. | .07 | .07 | -- | .11 | .09 | -- |
| Engineering | .12 | .12 | -- | .09 | .07 | -- |
| Professions) | .12 | .19 | -- | .10 | .14 | -- |
| Grade Point Average (cummulative, 0 to 10 point scale) | 6.12 | 6.25 | (3.16)* | 6.08 | 6.05 | (1.14) |
| Grade Point Average (cummulative, 0 to 3 point scale, corrected for institutional qual.) | 1.68 | 1.80 | (6.94)* | 1.82 | 1.94 | (12.00)* |

Table 14 (Continued)

| Characteristic | Public | | | Private | | |
|---|---|---|---|---|---|---|
| | Resident | Non-Resident | $X^2$ (Z) | Resident | Non-Resident | $X^2$ (Z) |
| Academic Year Work | | | | | | |
| (ratio full-time | .07 | .11 | -- | .10 | .05 | -- |
| part-time | .48 | .41 | -- | .47 | .43 | -- |
| not employed) | .45 | .48 | -- | .43 | .52 | -- |
| Plans on graduation | | | | | | |
| (ratio into graduate work | | | | | | |
| [as freshmen, | .33 | .33 | 0.19 | .36 | .41 | 16.94* |
| now] | .24 | .28 | 9.24* | .31 | .35 | 16.60* |
| ratio into full-time career work, | .55 | .48 | 14.88* | .43 | .34 | 65.92* |
| ratio into military) | .08 | .08 | -- | .08 | .08 | -- |
| Anticipated career field | | | | | | |
| (ratio in each: | | | | | | |
| Education | .37 | .25 | -- | .26 | .24 | -- |
| Business | .14 | .16 | -- | .19 | .17 | -- |
| Soc. Sci. | .03 | .04 | -- | .04 | .05 | -- |
| Humanities | .05 | .02 | -- | .06 | .09 | -- |
| Bio. Sci. | .02 | .06 | -- | .03 | .03 | -- |
| Phy. Sci. | .05 | .04 | -- | .07 | .05 | -- |
| Engineering | .10 | .10 | -- | .08 | .05 | -- |
| Professions) | .24 | .33 | -- | .27 | .32 | -- |
| Expected employer | | | | | | |
| (ratio in each; total adds to more than 1.0 since more than one choice allowed) | | | | | | |
| Private business | .33 | .37 | -- | .38 | .37 | -- |
| Family business | .01 | .03 | -- | .02 | .03 | -- |
| Self employed | .06 | .07 | -- | .08 | .09 | -- |
| Research Organ. | .06 | .07 | -- | .08 | .09 | -- |
| College | .11 | .13 | -- | .13 | .14 | -- |
| Other School | .36 | .23 | -- | .25 | .22 | -- |
| Federal govt. | .13 | .19 | -- | .13 | .12 | -- |
| State or local govt. | .05 | .07 | -- | .05 | .04 | -- |
| Hospital, Welfare | .06 | .08 | -- | .10 | .13 | -- |
| Other | .02 | .03 | -- | .02 | .03 | -- |
| Sample N | 11,695 | 1,725 | | 11,696 | 4,564 | |

*Significant at .05 level.

SOURCE: Derived from survey of 1961 college seniors, National Opinion Research Center, Chicago, Illinois.

Table 15

Comparison of Resident and Nonresident
College Seniors, Public and Private Institutions,
California, Spring 1961

| Characteristic | Public | | | Private | | |
|---|---|---|---|---|---|---|
| | Resident | Non-Resident | $X^2$ (Z) | Resident | Non-Resident | $X^2$ (Z) |
| Age (ratio below 25 yrs. old) | .75 | .32 | 77.60* | .91 | .82 | 0.99 |
| Sex (ratio males) | .58 | .64 | 1.86 | .63 | .63 | 0.00 |
| Marital Status (ratio single) | .66 | .32 | 52.38* | .77 | .70 | 0.38 |
| Race (ratio caucasian) | .95 | .91 | 0.56 | .98 | .95 | 0.10 |
| Religion (ratio reared Protestant, | .62 | .70 | 3.03 | .70 | .78 | 0.87 |
| now (1961) Protestant) | .54 | .51 | 6.58 | .60 | .66 | 0.75 |
| (ratio, no religion as freshman, | .10 | .06 | -- | .13 | .07 | -- |
| no religion as senior) | .20 | .24 | -- | .25 | .18 | -- |
| Father's Education (ratio high school or less) | .62 | .71 | 3.52 | .37 | .34 | 6.22 |
| Mother's Education (ratio high school or less) | .65 | .77 | 6.04* | .44 | .38 | 0.84 |
| Father's Occupation (ratio in professional, proprietor or managerial occupation) | .47 | .40 | 2.73 | .68 | .72 | 0.20 |
| Family Income (annual mean average) | $9,612 | $7,487 | (6.66)* | $13,969 | $13,074 | (1.16) |
| Major Field (ratio in each: | | | | | | |
| Education | .41 | .35 | -- | .20 | .20 | -- |
| Business | .11 | .18 | -- | .11 | .05 | -- |
| Soc. Sci. | .09 | .07 | -- | .16 | .18 | -- |
| Humanities | .11 | .12 | -- | .18 | .15 | -- |
| Bio. Sci. | .03 | .03 | -- | .04 | .03 | -- |
| Phy. Sci. | .05 | .04 | -- | .06 | .10 | -- |
| Engineering | .08 | .11 | -- | .13 | .12 | -- |
| Professions) | .12 | .10 | -- | .12 | .17 | -- |
| Grade Point Average (cummulative, 0 to 10 point scale) | 6.08 | 6.32 | (2.87)* | 6.23 | 6.39 | (1.44) |
| Grade Point Average (cummulative, 0 to 3 point scale, corrected for institutional quality) | 1.80 | 1.87 | (1.70) | 2.30 | 2.36 | (0.78) |

Table 15 (Continued)

| Characteristic | Public | | | Private | | |
|---|---|---|---|---|---|---|
| | Resident | Non-Resident | $X^2$ (Z) | Resident | Non-Resident | $X^2$ (Z) |
| Academic Year Work (ratio full-time | .10 | .25 | -- | .06 | .11 | -- |
| part-time | .47 | .47 | -- | .41 | .49 | -- |
| not employed) | .43 | .28 | -- | .53 | .40 | -- |
| Plans on Graduation (ratio into graduate work when freshmen | .39 | .34 | 1.49 | .43 | .48 | 0.47 |
| now (1961) | .33 | .36 | 0.64 | .48 | .41 | 1.04 |
| ratio into full-time career work, | .45 | .58 | 10.02* | .30 | .31 | 0.04 |
| ratio into military) | .06 | .01 | n.s. | .10 | .12 | n.s. |
| Anticipated Career Field (ratio in: Education | .44 | .39 | -- | .26 | .23 | -- |
| Business | .12 | .17 | -- | .21 | .18 | -- |
| Soc. Sci. | .03 | .04 | -- | .03 | .02 | -- |
| Humanities | .05 | .07 | -- | .06 | .05 | -- |
| Bio. Sci. | .01 | .02 | -- | .03 | .01 | -- |
| Phy. Sci. | .04 | .02 | -- | .04 | .07 | -- |
| Engineering | .08 | .11 | -- | .10 | .07 | -- |
| Professions) | .23 | .18 | -- | .27 | .37 | -- |
| Expected Employer (ratio in each, total adds to more than 1.0, multiple choice allowed | | | | | | |
| Private Business | .27 | .30 | -- | .46 | .46 | -- |
| Family Business | .02 | .00 | -- | .03 | .02 | -- |
| Self Employed | .06 | .04 | -- | .12 | .10 | -- |
| Research Organ. | .05 | .06 | -- | .06 | .12 | -- |
| College | .10 | .12 | -- | .15 | .12 | -- |
| Other School | .42 | .38 | -- | .23 | .23 | -- |
| Federal Govt. | .11 | .14 | -- | .08 | .12 | -- |
| State or local Govt. | .10 | .12 | -- | .07 | .10 | -- |
| Hospital, Welfare Agency | .06 | .03 | -- | .09 | .10 | -- |
| Other) | .02 | .01 | -- | .03 | .05 | -- |
| Sample N | 1,725 | 360 | | 318 | 147 | |

*Significant at the .05 level.

n.s. Not significant.

SOURCE: See Table 14.

Table 16

Characteristics of University of California, Berkeley Alumni, According to Student Residency and Subsequent Migration

| Characteristic | Resident Students | | | Nonresident Students | | |
|---|---|---|---|---|---|---|
| | Have Stayed | Have Departed | $X^2$ (Z) | Have Stayed | Have Departed | $X^2$ (Z) |
| Age (average years old) | 44.10 | 41.90 | 10.62* | 46.40 | 44.10 | 3.92* |
| Sex (ratio male) | .66 | .70 | 8.22* | .71 | .74 | 0.52 |
| Marital Status (ratio single) | .15 | .14 | 1.89 | .13 | .19 | 9.14* |
| Parents Attend UC (ratio yes) | .14 | .17 | 9.31* | .04 | .05 | 2.22 |
| Reported Years at College (average undergraduate only (ug only) | 3.61 | 3.52 | (1.35) | 3.29 | 3.13 | (2.44)* |
| average undergraduate + graduate (ug+g) | 5.92 | 6.22 | (3.22)* | 5.54 | 5.22 | (1.20) |
| average graduate only (g only) | 3.64 | 3.71 | (0.27) | 2.99 | 2.74 | (1.42) |
| Attend Institution other than UC? (ratio no, ug only | .38 | .33 | 17.58* | .26 | .21 | 3.99* |
| ug+g | .44 | .36 | 6.67* | .31 | .16 | 4.07* |
| g only) | .20 | .10 | 2.68 | .04 | .01 | 1.07 |
| Undergraduate Major (ratio in each field: | | | | | | |
| Education Serv. | .02 | .01 | -- | .03 | .01 | -- |
| Agri. Sci. | .02 | .01 | -- | .01 | .01 | -- |
| Humanities | .19 | .18 | -- | .17 | .15 | -- |
| Soc. Sci. | .16 | .16 | -- | .13 | .16 | -- |
| Bio. Sci. | .05 | .05 | -- | .06 | .08 | -- |
| M.P.E Sci. | .22 | .30 | -- | .23 | .32 | -- |
| Professions | .24 | .20 | -- | .29 | .21 | -- |
| Other) | .09 | .09 | -- | .07 | .05 | -- |
| Graduate Major (ratio in each: | | | | | | |
| Education Serv. | .02 | .01 | -- | .01 | .01 | -- |
| Agri. Sci. | .01 | .02 | -- | .02 | .01 | -- |
| Humanities | .10 | .11 | -- | .10 | .10 | -- |
| Soc. Sci. | .07 | .11 | -- | .10 | .14 | -- |
| Bio. Sci. | .02 | .05 | -- | .06 | .10 | -- |
| M,P,E Sci. | .12 | .22 | -- | .16 | .19 | -- |
| Professions | .55 | .39 | -- | .46 | .35 | -- |
| Other) | .11 | .11 | -- | .09 | .10 | -- |
| Portion of college expenses earned (ratio,average) | .35 | .38 | (6.37)* | .40 | .34 | (3.49)* |

Table 16 (Continued)

| Characteristic | Resident Students | | | Nonresident Students | | |
|---|---|---|---|---|---|---|
| | Have Stayed | Have Departed | $X^2$ (Z) | Have Stayed | Have Departed | $X^2$ (Z) |
| Years on Scholarship (ratio none) | .86 | .81 | 11.44* | .84 | .80 | 0.73 |
| Degree earned at UC (ratio ug only | .72 | .78 | -- | .59 | .65 | -- |
| ug + g | .12 | .13 | -- | .13 | .10 | -- |
| g only | .03 | .02 | -- | .14 | .15 | -- |
| certificate | .02 | .01 | -- | .03 | .02 | -- |
| none) | .10 | .06 | -- | .11 | .08 | -- |
| Individual head of family? (ratio yes) | .71 | .72 | n.s. | .78 | .76 | n.s |
| Occupation of Family head (ratio self-employed) | .31 | .15 | * | .31 | .27 | n.s |
| Type of employer (ratio in government | .06 | .22 | * | .11 | .18 | 23.62* |
| education | .27 | .16 | * | .23 | .22 | 0.46 |
| private bus.) | .29 | .33 | 12.73* | .31 | .29 | 0.49 |
| Number of children (mean average) | 1.89 | 1.94 | (1.92) | 1.85 | 1.79 | (0.91) |
| Family income (annual average) | $15,576 | $15,276 | (2.23)* | $16,115 | $15,597 | (1.50) |
| (annual average, adjusted for age, 6% annual increase in current $) | 44.10<br>$15,576 | 41.90<br>$17,370 | -- | 46.40<br>$13,907 | 44.10<br>$15,597 | -- |
| (annual average, adjusted for years out: 6% annual increase in current $) | 20.44<br>$16,774 | 18.92<br>$17,977 | -- | 21.71<br>$16,115 | 19.04<br>$18,229 | -- |
| Anticipate major income increase next 2 years? (ratio who do) | .68 | .77 | * | .63 | .71 | 4.73* |
| Sample N | 28,135 | 3,768 | | 1,793 | 725 | |

*Significant at the .05 level.

n.s. Deemed not significant.

SOURCE: Derived from data in Alumni Census Survey, Chancellor's Office, University of California, Berkeley, June 1964.

Table 17

Comparison of California 1967 High School Seniors Planning to Leave with Those Planning to Stay in California for Higher Education

| | Staying in California | Leaving California | $X^2$ (Z) |
|---|---|---|---|
| Sex (ratio male) | .48 | .48 | n.s. |
| Race (ratio caucasian) | .81 | .91 | n.s. |
| Marital Status (ratio married or planning marriage the following year) | .03 | .02 | n.s. |
| Living Situation (ratio in residence halls) | .14 | .76 | * |
| Father's Education (ratio with education beyond high school) | .48 | .66 | * |
| Mother's Education (ratio with education beyond high school) | .43 | .65 | * |
| Father's Occupation (ratio in executive or professional occupation) | .27 | .46 | * |
| Family Income (annual average) | $11,433 | $14,309 | 6.81* |
| Father's Employment (ratio working full-time) | .83 | .88 | n.s. |
| Father's Employment (ratio self-employed) | .18 | .26 | * |
| School Plans (ratio to attend 4-year institution, | .31 | .81 | * |
| ratio to subsequently transfer) | .41 | .20 | * |
| Term-time Employment (ratio not expecting to work) | .29 | .54 | * |
| Estimated Cost (annual average) | $1,399 | $2,172 | * |
| Distribution of Financial Support (ratio each is of total | | | |
| Parents' | .68 | .70 | -- |
| Savings | .05 | .06 | -- |
| Work | .15 | .07 | -- |
| Grants | .03 | .08 | -- |
| Loans | .04 | .06 | -- |
| Other) | .05 | .03 | -- |

Table 17 (Continued)

| | Staying in California | Leaving California | $X^2$ (Z) |
|---|---|---|---|
| Applied for financial aid? (ratio yes | .38 | .52 | * |
| if not, why ratio indicating grades, | .37 | .18 | * |
| ratio not in need) | .21 | .33 | * |
| Migration and High School Performance (ratio of each eligible group staying, attending institution out of California, or not attending any) | | | Not Attending Any |
| UC Elig. | .845 | .072 | .083 |
| State College (only) elig. | .697 | .043 | .260 |
| Comm. Coll. (only) elig. | .563 | .019 | .418 |
| (Total group) | .639 | .034 | .327 |
| Accepted in first choice school (ratio of group - yes) | .69 | .75 | n.s. |
| Expected Occupation (ratio professional, executive, managerial) | .47 | .62 | * |
| Sample N | 5,183 | 271 | |

*Significant at the .05 level; n.s. not significant at same level.

SOURCE: CCHE, UC, CSC Survey of California High School Seniors, June 1967.

Table 18

Income Distribution, Sample of Parents of 1967 College Freshman Who Were 1966 California High School Seniors

| Family Personal Income | Distribution (percent) | |
|---|---|---|
| | Attended California Institutions | Attended Non California Institutions |
| $ 0- 4,000 | 3.0% | 1.3% |
| 4,000- 6,000 | 5.2 | 2.0 |
| 6,000- 8,000 | 9.6 | 3.3 |
| 8,000-10,000 | 13.6 | 9.8 |
| 10,000-12,500 | 18.1 | 8.5 |
| 12,500-15,000 | 14.1 | 13.1 |
| 15,000-17,500 | 10.4 | 11.1 |
| 17,500-20,000 | 8.8 | 11.1 |
| 20,000-25,000 | 7.0 | 17.8 |
| >25,000 | 10.1 | 28.1 |
| Sample N | 1,982 | 169 |

SOURCE: Derived from survey of parents of 1967 college freshmen in SCOPE (School to College: Opportunities for Post-Secondary Education) Study.

Table 19

Post-Education Migration Patterns of Various Sets of California And Colorado Students, Comparing Residents and Nonresidents

| | Sample N | Ratio Staying | | $X^2$ | Nonresident Staying Rate as Percent of Resident Staying Rate | Ratio of Foreign Students | |
|---|---|---|---|---|---|---|---|
| | | Residents | U.S. Non-Residents | | | Staying in California | Returning Home |
| | | (in California) | | | | | |
| BERKELEY ALUMNI STUDY | | | | | | | |
| (1) undergraduate only | 24,793 | 0.87 | 0.69 | 55.8** | 79% | -- | -- |
| (2) undergraduate plus graduate | 4,155 | .87 | .77 | 3.6 | 89 | -- | -- |
| (3) graduate only | 1,362 | .93 | .70 | 10.2** | 75 | -- | -- |
| (4) total (includes non-degree recipients) | 34,421 | .88 | .71 | 77.2** | 81 | -- | -- |
| NATIONAL ACADEMY OF SCIENCES (Berkeley Ph.D's) | | | | | | | |
| (1) undergraduate work at Berkeley | 830 | .57 | .52 | 0.3 | 91 | .44 | -- |
| (2) undergraduate work not at Berkeley | 3,330 | .56 | .37 | 34.5** | 66 | .30 | -- |
| (3) AB from California institution | 3,159 | .55 | .49 | 2.2 | 89 | .44 | .16 |
| (4) AB, MA from any institution | 4,864 | .61 | .44 | 56.5** | 72 | .32 | .41 |
| CALIFORNIA STATE COLLEGES 1967 Spring Survey (stated intentions) | | | | | | | |
| (1) undergraduates | 8,188 | .93 | .70 | 6.1* | 77 | .36 | -- |
| (2) graduates | 2,755 | .96 | .56 | 11.8** | 58 | .58 | -- |
| FRESNO STATE COLLEGE 1968, 1969 Graduates Surveyed Summer 1969 | 4,631 | .89 | .72 | 4.9* | 81 | -- | -- |
| UNIVERSITY OF COLORADO | | (in Colorado) | | | | | |
| 1959 Graduates Surveyed Spring 1964 | | | | | | | |
| (1) Baccalaureate Degree | 1,092 | .47 | .32 | 14.6** | 68 | -- | -- |
| (2) Advanced Degree | 403 | .46 | .30 | 6.4* | 65 | -- | -- |

* Significant at .05 level.
** Significant at .01 level.

SOURCE: See Tables 12-16; Report by University of Colorado, Office of Institutional Research, "Distribution of the University of Colorado Class of 1959, Five Years Later," December, 1964; and preliminary data from Fresno State Alumni Study, conducted by the Office of Institutional Studies, Fresno State College, February 1970.

Table 20

Location of First Job, Berkeley
Ph.D's 1958-1968; by Discipline Type

| | Sample N | Ratio Staying in California | | $X^2$ | Non-Resident Staying Ratio as Percent of Resident Staying Ratio | Ratio of Foreign Students | |
|---|---|---|---|---|---|---|---|
| | | Residents | U.S. Non-Residents | | | Staying in California | Returning Home |
| Education | 464 | .92 | .70 | 29.5** | 76% | .34 | .57 |
| Arts & Humanities | 376 | .45 | .30 | 6.4** | 67 | .44 | .19 |
| Professions | 62 | .17 | .32 | 1.8 | 188 | .30 | .35 |
| Social Sciences | 815 | .45 | .29 | 14.8** | 64 | .24 | .45 |
| Psychology | 226 | .54 | .57 | 0.2 | 105 | .38 | .31 |
| Biological Sciences | 748 | .46 | .37 | 7.5** | 80 | .24 | .49 |
| Chemistry | 468 | .60 | .28 | 21.4** | 47 | .22 | .33 |
| Earth Sciences | 120 | .46 | .44 | 0.2 | 96 | .23 | .59 |
| Engineering | 713 | .60 | .39 | 17.2** | 65 | .39 | .28 |
| Agricultural Sciences | 69 | .60 | .63 | 0.3 | 103 | .06 | .94 |
| Mathematics | 447 | .52 | .22 | 16.7** | 42 | .22 | .37 |
| Physics and Astronomy | 525 | .51 | .42 | 2.7 | 82 | .39 | .19 |

**Significant at the .01 level.
*Significant at the .05 level.

SOURCE: Derived from records provided by the University of California and the National Academy of Science.

Table 21

Top Ten States in Numbers of Foreign Students
Enrolled in Institutions of Higher Education,
1958, 1963, 1968

| State | Total Foreign Enrollment | | |
|---|---|---|---|
| | 1968 | 1963 | 1958 |
| California | 19,345 | 10,937 | 6,841 |
| New York | 15,234 | 6,610 | 6,453 |
| Michigan | 7,089 | 4,376 | 3,483 |
| Illinois | 6,881 | 4,404 | 3,277 |
| Florida | 6,487 | --- | --- |
| Massachusetts | 5,501 | 3,762 | 3,235 |
| Texas | 4,461 | 2,634 | 1,917 |
| Pennsylvania | 4,204 | 2,907 | 2,038 |
| Washington, D.C. | 3,658 | 2,993 | 2,708 |
| Ohio | 3,531 | 2,296 | 1,713 |
| Indiana | --- | 2,427 | 1,926 |

SOURCE:
Various issues of "Open Doors," Institute
of International Education, New York.

# APPENDIX C

## ANALYSIS OF THE SOCIAL RETURN ON INSTRUCTION OF RESIDENT AND NONRESIDENT STUDENTS

### Introduction

Policy statements advocating an increase in the charge and/or barriers imposed upon the education of nonresident students are generally based, in part, upon the notion that State A will invest in a nonresident student who, after graduation, leaves that state, either to return home or migrate elsewhere, thereby precluding State A from the social benefits that are thought to accrue from the higher education of that individual. As noted elsewhere, there are numerous other considerations involved in the question of appropriate nonresident policies. It appears useful, however, to examine the empirical validity of the above proposition. This exercise implies an analysis of the possible social (i.e., public as contrasted to private) benefits which a state such as California may expect from expenditures for the instruction of resident as compared to nonresident students.

As a rule, institutions engage in the instruction of both types of student. In addition, there is normally an explicit commitment to the instruction of residents of the state in which the institution is located. As a result, the examination may have to be conducted using the latter policy as a constraint.

An exact solution to the problem is impossible to obtain due to two considerations. We do not examine the question of a proper allocation of education resources relating the total output of educated individuals to the demand for trained labor and the demands of society in general. In addition, part of the provision of higher education is based upon the notion that the public sector may affect redistributions of economic and social opportunity through the vehicle of equal educational opportunity. The latter, of course, is not subject to the usual resource allocation analysis.

Consequently, the practical results of this analysis can only indicate directional policy changes; i.e., whether nonresident charges should be increased or decreased; whether quotas should be imposed, increased or decreased; whether appropriate public policy is to influence an increase or decrease in the relative and absolute enrollments of nonresident students in an institution. This analysis cannot specify the exact level of nonresident tuition, exact number constituting a quota, and certainly not the nonresident admissions criteria which are appropriate.

Changes in nonresident policies may be direct, i.e., adjusting admissions criteria and raising or lowering quotas for nonresidents. There are also indirect measures such as adjustments in nonresident tuition and/or

modifications in the definition of residence.[1] The latter, of course, implies certain legal considerations.

In a complete analysis of resource allocation for public higher education, both the private benefits (costs) as well as the social benefits (costs) should be included. In the following, however, we describe a possible method for abstracting from the private benefits component when analyzing the return to public investment in the instruction of resident as opposed to nonresident students.

In Figure 1, basic price and demand relationships are shown for resident students in the right-hand quadrant and for nonresident students in the left-hand quadrant. Use of the left-hand quadrant is not intended to denote negative demand, but rather to facilitate comparison of the resident and nonresident student.

Efficient price and output $Q^e$ are derived, as usual, from the intersection of the total marginal benefits (demand) curve TMB and the total marginal cost (supply) curve TMC. The components of these curves, however, are not totally analogous to the cost and demand curves encountered in the usual microeconomic analysis of the private firm.

For public higher education, the total marginal benefits curve is the vertical summation of the marginal private benefits (demand) curve, mpb, and the marginal social benefits curve, msb (not shown).[2] The marginal social benefits curve, if shown, would exhibit slightly diminishing returns to scale. Constant or increasing returns to scale for msb could also be depicted. A more specific enumeration of both the private and social benefits of higher education will appear below.

Total marginal costs, TMC, include those borne by the State, i.e., costs of instruction $P_pP_t$. In addition, marginal cost includes a "private" component, the value of earnings a student must forego while he is enrolled plus those costs of subsistence which an individual would not

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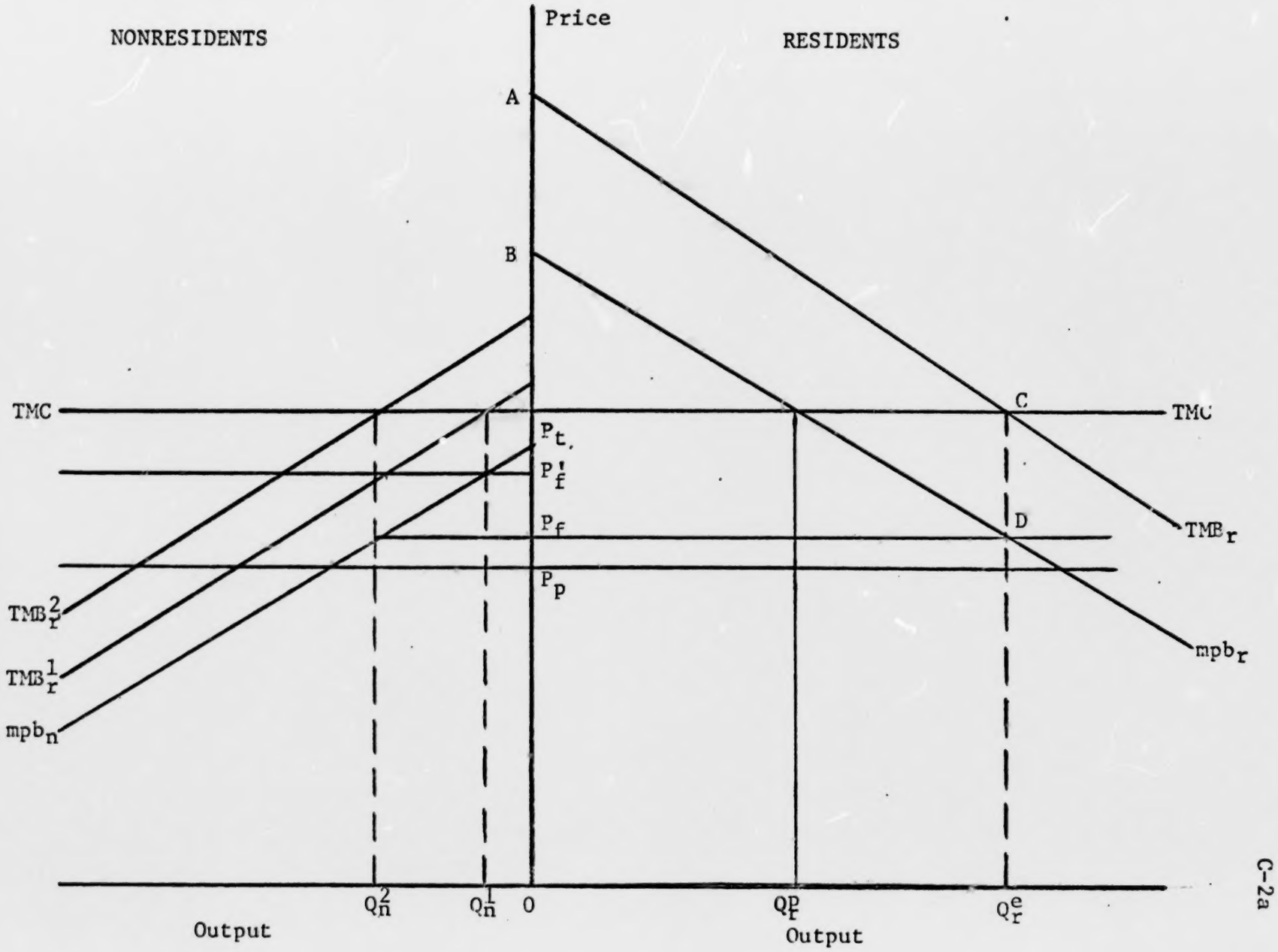
1. Tuition adjustment is termed an "indirect" tool since there is no way of predicting that higher nonresident tuition, given no change in admissions or quota policies, will result in a smaller level of nonresident enrollment than otherwise would have been the case. Such action may simply lead to a change in the socio-economic makeup of the student group without changing the number. Recent research, however, does suggest that there is a significant inverse relationship between institutional price and demand. (See S. Hoenack, Private Demand for Higher Education in California, Unpublished Ph.D. dissertation, University of California, Berkeley (1967); see also R. Campbell and B. N. Siegel, "Demand for Higher Education in the United States," American Economic Review, 42, June 1967, 482-494.)
2. For a detailed discussion of the analytics of optimal public good production, see J. G. Head, "The Theory of Public Goods," Rivista di Diritto Finanziario e Scienza delle Finance, June 1968, 27:209-236.

Figure 1


NONRESIDENTS
Price
RESIDENTS
A
B
C
TMC
TMC
$P_t$
$P'_f$
$P_f$
D
$TMB_r$
$P_p$
$TMB_r^2$
$TMB_r^1$
$mpb_n$
$mpb_r$
$Q_n^2$
$Q_n^1$
0
$Q_f^p$
$Q_r^e$
Output
Output

C-2a

incur if he were not a student. These "private" costs are shown as $OP_p$. A situation of constant marginal costs is obviously depicted in Figure 1.

The individual is also charged a "cash price" usually called tuition and fees which covers a portion of the instructional costs. Determination of the cash price simultaneously results in the determination of the State subsidy or support. The latter is simply the remainder of the instructional cost. In Figure 1 for resident students, the efficient output, $Q_r^e$, is determined by the intersection of TMB and TMC at C. For this solution, marginal private costs must equal mpb, at point D. Thus marginal private costs are $OP_f$ including both the costs of subsistence and foregone earnings $OP_p$ plus the cash price or tuition and fees $P_pP_f$. As depicted in the figure, tuition and fees amount to approximately one-fifth of the cost of instruction and the private cost is approximately twice the public cost involved in higher education. This is the common situation for a resident student at a public institution of higher education.

Note that if students were charged the total cost of education, $OP_t$, effective demand would be $Q_r^p$. Note also that the construction in Figure 1 excludes, as it must, any adjustments in price and output effected by the public sector for purposes of correcting (what is thought to be) distorted private demand for higher education or for redistributive (of educational opportunity) motives.

At output $Q_r^e$, total social benefits are shown by the area ABDC. The relationship of social benefits to the total social costs $P_tP_fDC$ is obvious. Similarly, total private benefits $BDQ_r^eO$ may be compared to total private costs $P_fDQ_r^eO$.

Under certain assumptions regarding social costs and benefits, this partial equilibrium analysis may be considered to define an appropriate level of output for public higher education vis-à-vis other public (and private) activities if other sectors of the economy are efficiently organized; that is, if the resources used for higher education are correctly priced, in terms of their value in their next best alternative use, whether that use is in public or private production. Unfortunately, the other sectors of the economy are not so organized, at least not in the economic sense of Paretian efficiency.

The solution to this particular problem is not immediately evident. We shall assume, however, that our findings, comparing resident and nonresident students, are not seriously distorted as a consequence.

Price and demand relationships are depicted for nonresident students in the left-hand quadrant in a manner equivalent to that developed for resident students in the right-hand quadrant. It is assumed that nonresident tuition and fee charges $P_pP_f'$ are approximately three times that of resident students and that the horizontal sum of the demand curves $mpb_n$ exhibited by such individuals possesses a constant slope equal to that of residents, although the price-elasticity is obviously

somewhat lower.[1] The level of nonresident demand as determined both by the slope and intercept of the $mpb_n$ is such that, in conjunction with the cash price, there is a nonresident enrollment $Q_n$ which constitutes a normally small proportion of the resident enrollment $Q_r^e$. These price and output levels for nonresidents are generally analogous to those exhibited by many public institutions of higher education across the nation. Those institutions who employ quotas (non-price rationing) on residents would be, of course, an exception to this general case.

An efficient output or enrollment of nonresident students $Q_n^e$ is yet to be determined and can only be so obtained by indentification of the social benefits which accrue from such students. At this point, a plausible simplifying assumption may help. Specifically, assume that the social benefits which accrue to society from an individual with a given level of education will <u>not</u> vary according to whether he was classified as a nonresident or resident while a student. As a consequence, any differential social benefit to California from the education of each of the two types would simply be a function of the relative probabilities that each remains in California after completing his education.[2] The marginal social benefits curve $msb_n$ for nonresidents may be depicted as a percentage of the $msb_r$, since it is commonly postulated (and appears to be empirically supported by data to be discussed below) that nonresident students less often remain in a state following their higher education than do residents. In particular, for $Q_n^1$ to be an efficient solution, it must be that the probability of a nonresident remaining in California is approximately .4 times that same probability for resident students, and, therefore, there exists a total marginal benefits curve $TMB_n^1$. If in fact, the "staying" probability of the nonresident is .8 that of the resident, with the resulting $TMB_n^2$, then the efficient output would be $Q_n^2$, derived by a tuition and fee charge approximately equal to that for residents, $P_pP_f$.

Different assumptions regarding the level and price-elasticity of demand on the part of nonresidents may be examined for modifications to the above analysis. For example, a higher level of nonresident demand -- higher intercept for $mpb_n$ -- with no change in the slope of the $mpb_n$ (and thus a slightly higher price-elasticity) would, given comparable values for the social benefits, result in a higher level of $Q_n^e$ at a slightly higher cash price $P_pP_f$ if the social benefits exhibit decreasing marginal utility (<u>no change</u> in the cash price if social benefits exhibit a constant marginal utility; in which case, the state subsidy is unchanged). On the other hand (given the same level-intercept), if the $mpb_n$ exhibits a much steeper slope and, therefore, a much smaller price-elasticity, the

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1. The average price-elasticities depicted in Figure 1 are not intended to conform to reality. Research cited above suggests a much lower price-elasticity of demand for higher education than the slopes of $mpb_r$ and $mpb_n$ would indicate.
2. Note that somewhat different reasoning must be applied to the foreign nonresident.

result is a lower level of efficient output either at the same or a slightly lower cash price to the student, again depending upon the returns to scale of the social benefits.

From this exercise, one may conclude that, given the above assumptions regarding social benefits (accruing from residents as contrasted to nonresidents) and regardless of the shape and position of the private demand curves (exhibited by the resident as contrasted to the nonresident), efficient output $Q^e$ requires a cash price or tuition and fee charge that is equal to the value of the marginal cost of instruction less the value of the marginal social benefits at that $Q^e$. Therefore, the entire analysis of the social return to resident versus nonresident education may be conducted without direct reference to the private benefits of higher education. While this may have appeared intuitively obvious, the analytics behind the result are not quite so obvious.

The above analysis was conducted without reference to a number of obvious policy restrictions and feasibility constraints that exist with respect to the question of nonresident instruction. In addition, there is no very precise indication of empirical implications for the possible nonresident policies noted earlier.

There are specific policies or conditions which must be considered in association with the objective of maximizing social return described above. Current State policy is that all California residents desiring an undergraduate education who are eligible for admission be provided the opportunity of attending the appropriate segment (Community College, State College, or University) for their preferred level of education. Further, the California Master Plan decreed it to be in the State interest that a greater share of lower division students be educated in Junior Colleges, presumably due to cost factors. For this policy to be consistent with the policy of general access to higher education, the student must, upon acceptable completion of two years work in a Community College, be provided space in one or the other of the four-year segments if he desires to continue his education and obtain a bachelor's or higher degree.

The consequence of this policy for the University is as follows. If its current student mixture is thought to contain relatively "too few" nonresident students, it might attempt to increase the numbers of such students while lowering the number of residents (assuming a given capacity). There is, however, a minimum level of resident enrollment below which certain numbers of residents, when diverted, are effectively denied an opportunity to continue their education. This occurs because such individuals for one reason or another are unable (or do not desire) to attend another institution within California and are unable to pursue their education out of State. Therefore, resident enrollment below such a minimum would be directly contrary to State and institutional policy. The same reasoning is applicable to the State Colleges.

A further condition on the ability of the University to replace resident with nonresident students is the ability of the State Colleges, Community

Colleges, and private institutions to handle those residents so diverted. Similar conditions hold for those residents who might be diverted from State Colleges to Community Colleges, the University, or to private institutions. In addition, it would seem that the set of potentially "divertable" students should be limited to new students enrolling in lower division. The diversion of continuing students or the diversion of new upper division and graduate enrollees from the University to the State Colleges or vice versa would appear to be unwise on several counts.

Another policy related to the resident-nonresident question is the so-called provision of "tuition-free" education for California residents.[1] The cost to the State of educating a nonresident is significantly lower than for the resident due to the tuition charged to the former. This implies a greater net social return from instruction of nonresidents than from instruction of residents, other things (such as post-graduation migration rates) being equal. One might be induced, as a consequence, to suggest a minimum cost level of nonresident tuition resulting from the solution to the net social benefit problem described below. The solution is somewhat more complicated. For example, as the nonresident cost to the State decreases, (nonresident tuition increases), it is likely that fewer nonresidents will enroll, possibly reducing the number below the optimum level. Further, considerations of tuition charges are normally based upon analysis of the private benefits from higher education in comparison with those returns thought to accrue to society. When put in this context the question of resident tuition must also be considered. This paper does not deal with resident tuition nor does it deal with the private returns from education. Thus, any recommended adjustments to nonresident tuition that may follow are based upon such adjustment being an indirect policy tool to raise or lower the number of nonresidents in attendance.

Nonresident tuition is often thought of simply in terms of being an additional revenue producer to support the operation of the institution. The amounts of such tuition collected at the University ($10.4 million estimated for 1969-70) and State Colleges ($3.2 million) constitute 2.0% and 0.9%, respectively, of the operating income of these segments. While sufficient operating income is of major significance, the public investment aspect of higher education would seem to justify tuition policies based upon considerations of more than just the "obtaining more revenue to operate the program next year" type.

Another important consideration is that of segmental capacity. In the short run, it is possible to hire more faculty and staff to handle a significant increase (in the rate of increase) in student enrollment. Three and sometimes as many as five years are necessary to plan for and

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1. So-called because a nominal tuition is currently charged residents attending both the University and State Colleges. The University Registration fee contains a $27 laboratory charge (whether or not a student is ever in lab) while the State College Materials and Service fee contains a $41 charge most of which is used to defray instructional costs.

construct the classrooms and related facilities necessary for such an enrollment increment, however.[1] In the analysis that follows the capacity constraints will be constructed so as to be useful in formulating either long or short run policies.

To summarize, this analysis examines the respective social returns accruing to the people of California from instruction of resident and nonresident students, duly recognizing the State's responsibilities for providing appropriate educational opportunity for its residents and noting possible segmental capacity and staff limitations.

Obviously, there is an enormous problem in correctly specifying the variables that must go into such an analysis. While the private benefits (primarily additional lifetime earnings) from higher education have been examined in some detail, the benefits accruing to the society in general from such education have never been estimated with any precision and are not totally quantifiable in any case.

The possibility for approximation is present, however. For example, it seems reasonable to assume, as we have above, that the social benefits resulting from the presence in California of the capability represented in the person who had undergone a higher education do not vary according to whether that person was a resident or nonresident during the time he was a student. The important distinction thus becomes the respective frequencies with which resident and nonresidents remain in the State after completing or terminating their higher education. Several sets of data are utilized in this study to derive an acceptable estimate of these "staying" ratios.

The public costs for student instruction may be ascertained with some precision and student charges readily identified. However, there is the problem of allocating facility and operating capacities by level of instruction, an important point since most nonresidents are graduate students while, by contrast, most resident students are undergraduates.[2] Facility and staff capacities may be readily identified, although the variability of the latter (and the former in the long run) has significant implications for planning policies. For example, if the analysis indicated that substantially more nonresidents could "profitably" be enrolled in a segment but that few or no residents could be displaced to other institutions, an obvious policy conclusion might simply be to plan for a relaxation of nonresident enrollment restrictions and plan for greater capacity to accommodate the nonresident increment estimated to be forthcoming.

In spite of the numerous difficulties in specifying important variables and the conceptual difficulties which relegate the solution to a "second

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1. A temporary increase in utilization of plant capacity might be suggested. This is not always possible, however, and would not seem to be a legitimate point for concern in this analysis.
2. The University reports that, during 1968-69 more than sixty percent of the nonresident population was enrolled at the graduate level.

best" status, the analysis appears sufficient to provide a reasonable basis upon which judgments may be made concerning at least the "directions" which nonresident policies might take. Thus, the solution should aid in answering questions such as "should we be more (less) restrictive regarding nonresident enrollments?" or, more specifically, "should we raise (lower, maintain) nonresident charges, establish quotas, raise (lower) nonresident admissions requirements, etc.?" It is doubtful that this analysis, or any other of similar proportions, can legitimately indicate the proper absolute level of nonresident tuition charges or precise preadmission preparation to be expected of nonresidents. These are matters which must, in the final analysis, rely upon additional information and the judgment of those individuals charged with the decision-making responsibility.

## The Model

The objective function (to use the usual programming terminology) which we wish to maximize may be stated as follows:

$$V = \sum_{i=1}^{6} v_i x_i \ , \quad i = 1,2,3,4,5,6$$

where,

$V$ = the total net social return over cost from the various activities undertaken by the public segments of higher education

$v_i$ = the net social return over cost associated with one unit of each output $x_i$

and,

$x_1$ = output of undergraduate resident students

$x_2$ = output of undergraduate nonresident students

$x_3$ = output of graduate resident students

$x_4$ = output of graduate nonresident students

$x_5$ = output of research

$x_6$ = output of public service

The social returns from such institutional outputs are not immediately forthcoming but occur over a span of years. For now, the time path consideration is omitted for purposes of clarity. It will be introduced below when appropriate for specification of $v_i$. In addition, one may

object to the treatment of students as outputs in this manner since, in another sense as shown below, they are inputs and, in still another sense, they are consumers purchasing a commodity called higher education. For this analysis, however, where "profits" are the social benefits resulting from the presence of educated individuals and where the institution or segment of higher education is analogous to the firm, the designation of a student output seems both appropriate and necessary.

Research and public service activities are omitted from the analysis. This is justified on the basis that their inclusion introduces complications not commensurate with additional analytical "light" which they might shed upon the solution to our main problem, i.e., the optimal mixture of resident and nonresident students. Specification of the social returns to research and public service expenditures would seem to present even more formidable obstacles than does the case of student instruction. Further, we do not have the convenient vehicle of assuming similar social benefits per (similar) unit of $x_5$ and $x_6$ as we shall in the case of $x_1$ and $x_2$ and $x_3$ and $x_4$.

As noted above, maximization of our objective function is subject to several important capacity constraints which may be introduced in the form:

$$Ax \leq s$$

A is the matrix of technical (input-output) coefficients for each of the activities (relating to student instruction) in which the segment is engaged:

$$A = \begin{pmatrix} A_{11} \\ \cdots\cdots \\ A_{21} \end{pmatrix} = \begin{pmatrix} a_{11} & a_{12} & a_{13} & a_{14} \\ a_{21} & a_{22} & a_{23} & a_{24} \\ a_{31} & a_{32} & a_{33} & a_{34} \\ a_{41} & a_{42} & a_{43} & a_{44} \\ \cdots\cdots & \cdots\cdots & \cdots\cdots & \cdots\cdots \\ a_{51} & a_{52} & a_{53} & a_{54} \\ a_{61} & a_{62} & a_{63} & a_{64} \\ a_{71} & a_{72} & a_{73} & a_{74} \\ a_{81} & a_{82} & a_{83} & a_{84} \end{pmatrix}$$

x represents the (4 by 1) matrix of outputs, i.e., $x_i$'s:

$$\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{pmatrix}$$

And s represents an 8 by 1 matrix of segmental resources or inputs; enumerated as follows:

$s_1$ = units of faculty

$s_2$ = units of operating support; i.e., departmental support, libraries, plant maintenance and operation, etc.

$s_3$ = units of physical plant related to instruction: classroom, lab, library, etc.

$s_4$ = units of residential physical plant

$s_5$ = input of undergraduate resident students

$s_6$ = input of undergraduate nonresident students

$s_7$ = input of graduate resident students

$s_8$ = input of graduate nonresident students

Thus, $a_{11}$ represents the number of units of faculty ($s_1$) required to produce one unit of output of undergraduate resident students ($x_1$); while $a_{12}$ represents the units of faculty required to produce one unit of output undergraduate nonresident student ($x_2$). Similarly, $a_{13}$ represents the units of $s_1$ required to produce one unit of graduate resident student output ($x_3$) and $a_{14}$ is the input-output coefficient for $s_1$ and $x_4$.

The remainder of the activity submatrix $A_{11}$ is made up of the input-output coefficients for the inputs of operating support ($s_2$), instructional plant ($s_3$) and residential plant ($s_4$). With the exception of $s_4$, these coefficients distinguish primarily between undergraduate and graduate activities, not between residents and nonresidents. While the graduate-undergraduate constraint differences would seem incidental to this analysis, the major production differences for the two levels of instruction and the fact that most of the nonresidents are enrolled at the graduate level, particularly at the University, render the use of these constraints not only helpful but necessary. The difference in residential plant requirements for the resident and nonresident results from the obvious fact that a number of the former may reside at home while in attendance.

Obviously, the segment cannot call upon more resources than are available but could utilize less than the total available. This is described by $Ax \leq s$. In the formulation, we must be careful not to include any of the segment's resources committed to organized research and public service since these activities are excluded from consideration.

The existence of activity submatrix $A_{21}$ is due to the fact that students are both inputs as well as outputs in the process of instruction. The variables $s_5$, $s_6$, $s_7$, and $s_8$ are of major importance, especially when it is noted that they are the variables which changes in "resident and nonresident policies" directly affect. The coefficients of $A_{21}$ represent persistence factors for each type of student and, with some exceptions, all entries except those on the main diagonal are equal to zero:

$$A_{21} = \begin{pmatrix} a_{51} & 0 & 0 & 0 \\ 0 & a_{62} & 0 & 0 \\ 0 & 0 & a_{73} & 0 \\ 0 & 0 & 0 & a_{84} \end{pmatrix}$$

since one input of undergraduate resident student cannot technically be converted by the instructional production process into a unit of output of undergraduate "nonresident" student, within the specified time span (say, one year or the time from initial enrollment to first degree receipt). Exceptions (i.e., nonzero entries off the main diagonal) may arise from changes in residency status and $s_i$ and $x_i$ must be clearly specified to either be based upon residence as of initial enrollment or as of completion or some other explicit time reference, depending upon the purposes of the analysis.

If, for example, the period of time reference is one year, then $a_{51}$ would represent the number of October (year t) resident undergraduates for each June (year t+1) resident undergraduate. If, on the other hand, the $x_i$ are measured in terms of degree recipients, then $a_{51}$ represents the reciprocal of a persistence index, constructed by taking into account the various patterns of flow and migration (in and out of the institution or segment). Thus, if about one-half of the resident students who start the undergraduate program (in year t) eventually obtain a bachelor's degree, then

$$a_{51} = 1/.5 = 2$$

i.e., "it takes two $s_5$ to produce one $x_1$," given this measure of output.

$A_{21}$ is of considerable importance if persistence rates differ significantly among the four types of students, in particular between the resident and nonresident. At present there are no accurate data on persistence classified according to residency. As a consequence, we shall assume that $a_{51} = a_{62} = a_{73} = a_{84}$ for purposes of empirical calculations based upon

the model, thereby allowing us to eliminate $A_{21}$ from the constraint set and let $A = A_{11}$. It may be noted, however, that one could infer persistence differences from rough proxies such as high school performance, college gradepoint averages, and years-to-degree. All of the data sets examined in Chapter III, for example, reveal that nonresident enrollees (in contrast to residents) show better high school performance (usually by definition of admission requirements), report higher college gpa's and take fewer years to complete their program; both at graduate and undergraduate levels. If, as this implies,

$$a_{51} > a_{62} \qquad \text{and} \qquad a_{73} > a_{84}$$

then the effect is, of course, to alter the surface of the feasible set of output points in such a way as to favor relatively greater production of nonresidents. This effect will be explored in a qualitative fashion below.

There are, as has been mentioned, certain constraints relative to the enrollment of each type of student that must be taken into account. Normally, these constraints would be specified by the submatrix

$$\begin{pmatrix} \cdots \\ s_5 \\ s_6 \\ s_7 \\ s_8 \end{pmatrix}$$

However, the assumption that

$$a_{51} = a_{62} = a_{73} = a_{84}$$

and decision to quantitatively disregard the persistence problem due to lack of data require that we specify policy and empirical constraints on student types in terms of the $x_i$'s.

Here, we face several alternatives. Obviously, the institution cannot produce a negative number of any type of student, so that in one case we may specify:

$$(1) \qquad x_i \geq 0 \qquad\qquad i = 1,2,3,4$$

However, the State has deemed itself responsible for educating those residents who are eligible and desirous of attending an institution of higher education; in which case:

$$(2) \qquad 0 \leq x_1 \leq x_1^{\circ}$$

where $x_1^\circ$ is the number of "eligible" resident undergraduate students who want to attend (during the specified time period). The level of $x_1^\circ$ is essentially that resident undergraduate enrollment which now exists and is anticipated in each segment. This is the case at the University since all eligibles desiring to attend the institution have, to date, been accommodated on some campus in the segment. The State Colleges may present a different picture. There is evidence that recently a small number of eligible students desirous of attending a State College may have for reasons of insufficient capacity been forced to attend a Junior College or go elsewhere. No similar explicit policy constraints appear to exist in the case of potential resident graduate students; and clearly not in the case of the nonresident.

Further, as noted by the above discussion, it is also public policy to provide a higher education for a resident at an appropriate public segment, not necessarily that for which he is eligible and desirous of attending; i.e., the "University or State College eligible" student may be "encouraged" to take his lower division work at a Junior College and subsequently transfer to a four-year institution. In addition, during any given year there is an upper limit on the number of nonresidents with appropriate qualifications who desire to attend the segment. These conditions are stated as:

$$(3) \qquad x_1 = x_1^* \qquad \text{and}$$

$$(4) \qquad (x_2 + x_4 = (x_2^* + x_4^*)$$

where, $x_1^*$ is the minimum level of resident undergraduate enrollment below which diversion of residents from a segment effectively denies a significant number of students the opportunity to continue their education. The quantity $[x_1^\circ - x_1^*]$, must, in all likelihood, not exceed the number of potential new, lower division students in either of the four-year segments. The diversion of upper division or graduate students from a segment would doubtless effectively deny many students the opportunity to pursue an education. Obviously, it is technically impossible to divert upper division and graduate students from the University or State Colleges to a junior college. The nonresident restriction, $x_2^* + x_4^*$, is the maximum number of such students potentially available for enrollment in the segment during the period examined.

In summary, the above restrictions may be rewritten as:

$$(5) \qquad x_1^* \leq x_1 \leq x_1^\circ$$

$$0 \leq x_2 + x_4 \leq x_2^* + x_4^*$$

The upper and lower policy limits to resident and nonresident enrollments are now imposed as restraining conditions.

The programming problem may now be summarized. We wish to maximize:

$$V = v_1x_1 + v_2x_2 + v_3x_3 + v_4x_4$$

subject to:

$$a_{11}x_1 + a_{12}x_2 + a_{13}x_3 + a_{14}x_4 \leq s_1$$

$$a_{21}x_1 + a_{22}x_2 + a_{23}x_3 + a_{24}x_4 \leq s_2$$

$$a_{31}x_1 + a_{32}x_2 + a_{33}x_3 + a_{34}x_4 \leq s_3$$

$$a_{41}x_1 + a_{42}x_2 + a_{43}x_3 + a_{44}x_4 \leq s_4$$

and

$$x_1^* \leq x_1 \leq x_1^\circ$$

$$0 \leq x_2 + x_4 \leq x_2^* + x_4^*$$

Once the variables are specified and appropriate data developed the solution may be obtained by the usual linear programming methods.

The assumption of constant returns to scale in the educational operation may certainly be questioned. There is some evidence that over certain ranges of institutional operation there are varying returns to scale. In the analysis, a segment is equated to the "firm." In each segment there are small campuses (colleges) where increasing returns are known to exist along with larger, more established campuses which are likely to demonstrate constant or even decreasing returns. Constant returns to scale may thus be a fairly close approximation to the average segment in which there is simultaneous operation of numerous campuses which range in size from the very small to the very large.

A nonlinear, strictly concave or quasiconcave, objective function where, ultimately, the marginal net social return per additional unit of $x_i$ is decreasing is also possible. However, in view of the rapid population and technological expansion of California and the resulting need for trained individuals, the ranges of $x_i$ where

$$\frac{\partial^2 V}{\partial x_i^2}$$

is significantly less than zero, intuitively seem to be well beyond the existing capacities of the segments. Thus, the objective function in actuality may well be approximately linear. In any case, specifying the nature of a linear objective function, as we shall see below is difficult; specifying the nature of a nonlinear objective function would seem to be next to impossible given the data currently available.

Given the existing enrollments ($x_1^\circ$, $x_2^\circ$, $x_3^\circ$, and $x_4^\circ$) we can examine the possible solutions to V, i.e., various values for ($x_1$, $x_2$, $x_3$, $x_4$), for their policy implications. If, for example, the solution to the objective function is of the form:

(6) $x_1^\circ + x_3^\circ < x_1 + x_3$ and $x_2^\circ + x_4^\circ > x_2 + x_4$,

greater social returns will be obtained by increasing the enrollment of residents relative to nonresidents. In this case, a policy of increased charges or other barriers to nonresidents would seem valid, although for reasons other than those suggested in the report of the Governor's Task Force. In the short run, the different mix suggested by the analysis may also be achieved by providing inducements to eligible residents who might not otherwise have enrolled and thereby pushing $x_1 + x_3$ beyond $x_1^\circ + x_3^\circ$.[1] In the long run, the segment may adjust enrollment mix by planning capacity primarily for increased residents and a reduced or constant nonresident enrollment resulting from the imposition of the direct and/or indirect mechanisms (nonresident quotas, tuition increases, etc.) mentioned above.

A solution of the nature indicated by:

(7) $x_1^\circ + x_3^\circ > x_1 + x_3$ and $x_2^\circ + x_4^\circ < x_2 + x_4$

suggests that a relatively greater number of nonresidents, i.e., the relaxation of nonresident restrictions, should result in an increase in the net social return from instruction. In the short run, given plant capacity, a higher return may only be achieved by an enrollment mix where more nonresidents are admitted, presumably by the diversion of residents to other institutions. In the long run, increased plant capacity may be provided without effective diversion of eligible residents.

## Specification of Variables

The next and perhaps most critical step in formulating the analysis is the specification of the variables described above.

In many ways the most difficult specification is that of $v_i$, the net social return over cost associated with each unit of $x_i$. Both the social expenditures and benefits associated with the instruction of a student take place over a number of years. If, for example, a graduate remained in California for the duration of his lifetime, then the social benefits would presumably accrue to the State annually until his death. The State's expenditure for the education of this individual would be recorded over a fewer number of years, though possibly as many as twenty,

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1. Such inducements might be in the form of student financial aid or other special programs which have a positive effect on effective resident demand.

if one were to include elementary and secondary or continuing (post-graduation) education costs as well.[1]

In view of the necessary time path consideration, the present value of the expected net social return would appear to be the appropriate measure of $v_i$. This is obtained by the following:

$$(8) \qquad v_i = \int_{t=t_o}^{t_n} \left[ B_i(t) - E_i(t) \right] e^{-rt} dt, \qquad i = 1,2,3,4$$

where, the present value of $v_i$ is based upon the integral of the expected value of the difference of social benefits B less the social or public expenditure E during the period $t_o$ through $t_n$. The social rate of discount r completes the calculation. Since expenditures are normally reported in annual intervals, we may replace the "continuous" calculation by the "period" calculation:

$$(9) \qquad v_i = \sum_{t=t_o}^{t_n} \frac{B_i(t) - E_i(t)}{(1 + r)^t}, \qquad i = 1,2,3,4$$

and specify the nature of the B's and E's.

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1. The latter point opens up an interesting conceptual problem. Should the costs of elementary and secondary education be included when one analyzes the proper state investment in higher education instruction of resident and nonresident high school graduates? If so, the "profitability" of instructing the nonresident is considerably enhanced since California has contributed nothing toward the cost of his first twelve years of education. Or, should elementary and secondary school costs be regarded as "sunk" costs which presumably were taken into consideration when the state analyzed its investment in elementary and secondary school education relative to alternative public investment projects? The normal procedure is to acknowledge the opportunity costs (i.e., values in the next best use) of those resources which were purchased or are a consequence of the so-called historical sunk costs. The resources in this case are high school graduates and other potential college students. Their opportunity costs are represented by foregone earnings, the primary component of the private cost of higher education. A solution for the equation of the marginal private costs to the marginal private benefits of higher education was shown in Figure 1 but is not a part of this analysis. We assume that optimal conditions for this portion of the "joint" educational product are satisfied and concern ourselves solely with the social or public counterpart of the total resource allocation analysis.

For any year t, the social benefits which accrue to the state from those who, for example, were undergraduate students, are given by:

$$(10) \qquad B_1(t) = m_1(t)\, b_1(t)$$

where, for the individual, $m_1(t)$ is either 0 or 1 depending upon whether he resides in California or elsewhere, respectively, during year t. For the group of resident undergraduates who began their education in year $t_o$, $m_1(t)$ represents a probability distribution of range between 0 and 1; i.e., the "staying ratio" or the percent of the original $t_o$ group still residing in California during t. The expected value of $m_1(t)$ for the individual may be expressed in terms of this "staying ratio," perhaps best estimated on the basis of historical experience. The social benefits accruing from the individual (former resident undergraduate) present during year t are depicted by $b_1(t)$.

The same calculation holds for $B_2$, $B_3$, and $B_4$; i.e., the expected value of social benefits resulting from individuals who were once undergraduate nonresidents, resident graduates, and nonresident graduates at a California institution.[1]

Quantitative measurement of the social benefit, $b_i$, seems as a practical matter, to be impossible. While a number of relatively successful attempts at measuring the private benefits (added lifetime earnings plus social and cultural amenities) have been recorded, no one has yet succeeded in calculating the social benefits which result from higher education. In qualitative terms, however, the primary components of such social benefits appear to be:

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1. There is of course the related question of the individual who goes out of California to college and returns, or the individual who received all of his education in another state and comes to California to work or similarly pursue his profession. California is known to be a particularly heavy net importer of trained individuals, especially in certain professions such as medicine, dentistry, etc. For our analysis, however, we state the restriction that residents will not be forced to attend an institution out of state against their preference. Any policy conclusions arising from the analysis, therefore, should have little impact upon the net migration rates of those individuals who receive their higher education outside California. It is doubtful that a more restrictive attitude toward nonresident students, for example, would have appreciable impact upon the numbers of individuals who migrate to California following a higher education in another state. The latter is determined by such things as general professional opportunities, climate, and numerous other variables.

(1) The increase in human capital[1] and its consequent impact upon development of the area (in this instance, California), at the expense of other areas.

(2) The decrease in public costs for crime prevention, welfare payments, and other such activities as a result of better, more widespread education. Increased tax revenues that result from additional life-time earnings attributable to higher education. This is not an additional benefit but simply a redistribution of private benefits from educated individuals to those individuals who comprise the general tax paying sub-population (in the form of social benefits).

(3) The growth in the existing store of knowledge which results from research in conjunction with instruction.

(4) Intergenerational advantages arising from the informal education of children conducted by better-educated parents.

(5) General increases in the ability of citizens to communicate through the various media. Effective communication of information is necessary for the operation of a market economy and the maintenance of a political democracy.

(6) Increases in cultural attainment and effective participation in the political process. Also cited in this connection is increased participation in charitable organizations and civic affairs.

Even specifying the tax and public service differential [ (3) - (2) ] in terms of reduced transfer payments (social benefit flow) is difficult. While the difference in taxes paid may be calculated from the difference in lifetime earnings resulting from higher education, the reduction in needed public services (police protection, welfare payments -net transfers, etc.) as a result of a more-educated populace is not clear at this time. Obviously, the other five components of social benefits, as qualitatively categorized above, defy quantification.

In order to avoid some of the above difficulties, we shall make one simplifying assumption, that $b_1(t) = b_3(t)$ and $b_2(t) = b_4(t)$, and resort to an arbitrary estimation of $b_i$ based upon the notion of social opportunity cost.

The assumption that social benefits from a given level of education do not depend upon whether the individual was a resident or nonresident

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1. Most of the increment in human capital, however, may be imputed to the private benefits.

while a student, may seem somewhat arbitrary in view of the fact that nonresidents have demonstrated a higher level of achievement during their preparation (according to admissions requirements) than have residents. However, in an area for which quantification is completely lacking, the assertion that an individual who earned his BA as a nonresident student provides the community with a greater social benefit than the individual who earned his BA as a resident student would appear to be without foundation. While admittedly imprecise, the assumption that the benefits generally equate seems to be the most plausible first approximation. The assumption will be relaxed below to examine the possible consequences on policy outcomes.

An arbitrary estimation of $b_i$ may be based upon the notion that the very fact that the state supports higher education implies that the social return (benefits less cost) therefrom is at least equal to the social opportunity cost of having foregone an alternative public investment (or, more generally, the social return is greater than the loss sustained by removing the resources utilized from the private sector). This social return to higher education may be calculated with reference to the social rate of discount. Thus, once the public expenditure for higher education is determined, the social benefits may then be calculated by applying a rate of return on State investment, p, which may approximate the social rate of discount. Thus, we assume initially that (in terms of present value):

$$(11) \qquad b_i = (1 + p_i)I_i \ , \qquad i = 1,2,3,4$$

where, p = the rate of return on State investment in the instruction of i,

$I_i$ = the total cost of instructing i, and

$b_i$ = social benefits accruing from the instruction of i.

That is, we assume that higher educational policymakers have pushed output approximately to the point where the return on investment of factor resources in California public higher education is equal to the return those same resources would obtain in other public or private uses. Note that p is equal to the ratio of the areas ($ABDC/P_tP_fDC$) in Figure 1.

For purposes of this analysis, the absolute magnitude of $b_i$ is of no major importance if $b_1 = b_2 = b_3 = b_4$. If such is not the case, the absolute value(s) of $b_i$ assume importance and adjustments must be made to the initial linear programming analysis. We examine the implications of such adjustments for various relationships of the $b_i$. The "reasonableness" of each of the various assumed relationships may then be examined with reference to a number of socio-economic variables which may serve as rough "proxies" for the several components of social benefits as defined in this paper.

While variations in the absolute magnitude of p should not invalidate the directional (i.e., more or less) conclusions of our analysis, we do

test for the sensitivity of the model with respect to this variable below by examining two instances, one in which the rate of return on investment in instruction is 10% and another in which the rate of return is 20%.

The critical variables therefore are $m_i$, $E_i$ and $I_i$. Estimates for the "staying ratios," $m_i$, are attempted below from (three) independent sets of historical data. It also seems appropriate that we ascertain the degree of variation in $m_i$ that would be required to reverse the conclusions of the analysis.

The social costs or state expenditure ($E_i$) in this instance for the four types of student are quite different. For the resident undergraduate student the social costs are found by:

$$E_1(t) = I_1(t) - F_1(t)$$

where, $I_1(t)$ is the total cost of instruction (of the resident) including both plant and operating costs during the year t; and $F_1(t)$ is the amount of tuition and fees paid by the resident student during the year t. The general cost formulation is actually somewhat more involved:

$$E_i(t) = I_i(t) - F_i(t) - D_i(t) - P_i(t) + Q_i(t), \qquad i = 1,2,3,4$$

where, during year t,

I = the total cost of instruction,

F = amount of tuition and fees paid by the student,

D = the value of the "diversity" added to the educational experience by the presence, at the institution, of the nonresident,

P = the value of the international relations brought about by the attendance and training of the nonresident foreign student, and

Q = the value of the attendance opportunity foregone by a resident when he is displaced by a nonresident and unable to continue his education.

The costs of instructing the resident and nonresident at the same level are assumed to be equal -- a student's residency does not influence the expenditure for his instruction; i.e., $I_1(t) = I_3(t)$ and $I_2(t) = I_4(t)$.

The consideration that most nonresidents are graduate students is accounted for by the capacity constraints and the matrix $\Lambda$ of technical production coefficients. The use of four separate arguments in the objective function is not meant to reflect inherent profitability differences (since $b_i = (1 + p)I_i$) but, rather, reflects differences among the "staying ratios" $m_i$.

The value of the attendance opportunity denied a resident, Q, which is essentially unquantifiable, would be a critical variable were it not for the inclusion in our programming model of the constraint that $x_1 \geq x_1^*$. The result of this constraint is that $Q_i = 0$.

The value of international relations P, also unquantifiable, is a factor that occurs solely in the case of the foreign nonresident. The size and vigor of exchange programs suggests that this variable holds considerable value in nonresident enrollment considerations. While the value of this factor is undoubtedly a benefit, it is here shown as a deduction to cost simply for convenience.

Note that in this case the "staying" ratio $m_i$ may work in reverse. One of the objectives of foreign student programs is to develop trained individuals, especially those from underdeveloped countries, who will return to benefit their own country. However, a number of these students will remain after their education. In contrast to the nonresident from another state, large "staying" ratios among foreign students would appear to conflict with the basic objective of their enrollment.

The apparent consequence is that an inverse "staying ratio" would appear to be a more proper specification of $m_i$ in the case of the foreign nonresident. Due to this and the primarily external-to-California consideration of international relations value, it seems best to remove the foreign student element from the calculations of the model and treat this enrollment variable as an exogenously determined parameter. The analysis is thus reduced to a comparison of the resident and the U. S. nonresident, given the appropriate level of foreign student enrollment.

A diverse student body adds to the net social return in that the educational experience of all students is thought to be enhanced by having a number of nonresidents at the institution. While this value is a benefit the state receives from any student, regardless of residence, D is here shown as a deduction E since it (D) is only introduced by the presence of a nonresident on campus. There is no apparent procedure by which this variable may be quantified, although:

$$D_1 = D_3 = 0 \quad \text{and} \quad D_2 > 0, \quad D_4 > 0$$

It would appear, however, to be of considerable weight since it is the most frequently cited factor in justifications for the enrollment of nonresidents.

The difference between public expenditure for the resident and the nonresident student ($E_i - E_j$, $i = 1,3$; $j = 2,4$) is equal to the quantity $F_j - F_i + D_j$; i.e., the difference between the respective student charges plus the diversity value attributable to the nonresident. Thus, $E_i \geq E_j$ under the usual nonresident policies. This result is due, of course, to the fact that:

$$D_i = 0,$$

$$D_j > 0, \text{ and}$$

$$F_j > F_i$$

Once the present values for all the above variables have been calculated, the results $v_i$ may be inserted into our objective function and the programming problem solved for the quantities $x_i$ which provide the maximum net social return subject to the effective limits of feasible operation that have been imposed. The "optimal" enrollment mix may then be compared with the enrollment mix that now exists and the appropriate policy adjustments suggested.

## Empirical Findings

In the following, data for University of California operations are applied to the linear programming model. Given the historical staying ratios found in this study, estimated costs of instruction, and the resident undergraduate enrollment constraint, the "solution" suggests greater social return will result from relatively more nonresidents in the enrollment "mix."

At the undergraduate level, the large differential in public costs ($E_1$ = 5,696 and $E_2$ = 1,443, in present value (r = .1) for an average of five years of instruction) are such that the nonresident would have to remain only 44% as often in California as the resident in order that the expected social return for the two student types be equal ($v_1 = v_2$). This "staying relationship" is significantly lower than any of the historical relationships found in this study. If nonresidents stay 70 percent as often as residents (as indicated in Section II) the "break even" point ($v_1 = v_2$) occurs when nonresident tuition approximates $400, rather than the $1,200 currently charged.

The higher costs for graduate instruction lead to somewhat different results at that level. At the current cost differential ($E_3 - E_4 > \$1,020$ annually), $v_3 > v_4$ as long as $m_4/m_3 \leq .8$. Because of the large investment in the nonresident graduate student his expected social value will equal that of the graduate resident only if he remains in the State 80% as often as the resident.

The data on staying ratios indicate that for the nonresident who did both undergraduate and graduate work in California, $m_4/m_3$ probably exceeds .8, and may even approach .9. In contrast, it appears probable that the nonresident who does only graduate work in California stays less than 80% as often.

The above relationships imply that given the instructional cost and probable staying ratios, the differential between resident and nonresident charges at the graduate level may not be nearly as excessive as that which exists at the undergraduate level. Still, in either case, the marginal social returns from additional students would appear to be reduced if the differentials in charges were increased and relatively fewer nonresidents are enrolled.

As noted, the major obstacle in this analysis is the measurement of social benefits, $b_i$. The costs of instruction may be measured with

some degree of confidence and the reasonable estimates of historical "staying" rates derived. The benefits measurement, however, is somewhat arbitrary. The assumption that $b_1 = b_2$ and $b_3 = b_4$ appears plausible enough. However, the relationship between $b_3$ and $b_1$ or between $b_4$ and $b_2$ is not entirely clear.

The above results were derived with $r_i = p_i = .1$. If the values for $r_i$ and $p_i$ are changed to .2, the social return from graduate instruction increases relative to that for undergraduate instruction. The solution then favors both resident and nonresident graduate students over nonresident undergraduates. The latter group, in turn, is still more "profitable" than the resident undergraduates unless $m_2/m_1$ drops below .47.

The following values were used in the above analyses:

(1) $A x \leq s$:

$$\begin{aligned} 0.039x_1 + 0.039x_2 + 0.090x_3 + 0.090x_4 &\leq 6.2 \\ 0.040x_1 + 0.040x_2 + 0.089x_3 + 0.089x_4 &\leq 6.2 \\ 0.330x_1 + 0.330x_2 + 1.670x_3 + 1.670x_4 &\leq 96 \\ 0.178x_1 + 0.248x_2 + 0.236x_3 + 0.248x_4 &\leq 21.8 \end{aligned}$$

(2) $x_1^* \leq x_1 \leq x_1^\circ$ : $50 \leq x_1 \leq 65$

(3) $0 \leq x_2 + x_4 \leq x_2^* + x_4^*$ : $0 \leq x_2 + x_4 \leq 20$

(4) $\sum_{i=1}^{4} x_i \leq 96$

(5) $I_1 = I_2 = \$1,666$ annually
$I_3 = I_4 = \$4,655$ annually
$F_1 = F_3 = \$ 300$ annually
$F_2 = F_4 = \$1,320$ annually

$p = .1, .2$
$r = .1, .2$

(6) for initial run:

$m_1/m_3 = .98$
$m_2/m_3 = .76$
$m_3/m_3 = 1.00$
$m_4/m_3 = .82$

Four of every 100 University students are from foreign countries. Taking the foreign student figure as given, the analysis examines the enrollment mix for every 96 students. The matrix of technical coefficients is based upon a student:faculty ratio of 15.5:1. The coefficients for undergraduate and graduate faculty are based upon those weightings in University budget requests. The "support" coefficients are derived from budgetary

data and in view of their similarity to the faculty coefficients, may be discarded without seriously affecting the final solution. The constraint for academic facilities is based upon graduate students requiring approximately five times the area required for each undergraduate and one "unit" of space for each student. The residential constraint is based upon the residence provision for 23 percent of University students and an assumption that 18 percent of resident undergraduates live at home and 5 percent of resident graduates live at home.

The enrollment constraints are based upon (1) an assumption that only a portion of first-time freshman residents may be diverted without also being denied opportunity and (2) that generally not more than 20 United States nonresidents (for every 100 of total enrollment) will be seeking to attend the University.

Instructional costs are derived from data contained in Coordinating Council Study No. 1035, Student Charges. The staying ratios are derived from data developed during the course of this study, described in Section II.

A similar analysis was conducted for the California State Colleges using 1969-70 data on costs and enrollments. Given the values for $F_i$ and $r_i = .1$ and $p_i = .1$, the so-called "break even" points ($v_1=v_2$ and $v_3=v_4$) occur when $m_2/m_1 = .6$ and, again due to the different level of investment at the graduate level, where $m_4/m_3 = .8$. While not strictly conclusive, the Fresno State College alumni data examined in Chapter III suggest that the actual ratios may well exceed these figures. Thus the State College results are quite similar to those for the University. The social return on the nonresident is such that "corner" solutions are obtained; i.e., the major factor limiting the optimal mix (which would be relatively more nonresident intensive) is the undergraduate resident constraint: $x_1^* \leq x_1 \leq x_1^\circ$. If $r_i = .2$ and/or $p_i = .2$, then the social return from the graduate student again increases relative to that for the undergraduate.

THOMAS C. LYNCH
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COPY

COPY

March 3, 1970

M. Charles McIntyre, Principal
Higher Education Specialist
Coordinating Council for Higher Education
1020 Twelfth Street
Sacramento, California 95814

Subject: Student Residency Requirements

Dear Mr. McIntyre:

This is in response to the long pending inquiry from the Coordinating Council concerning the ability of the State to adopt legislation that would correspond to that utilized by Michigan State University, namely, a law which would deny a student while attending a public institution of higher education an opportunity to demonstrate that he had in fact changed his residence. The Michigan State University regulation provides, in effect, that any person classified as a nonresident student for tuition and fee purposes when he enters the institution retains that status throughout his regular attendance at the institution and may not demonstrate that he has changed his residence.

We had previously withheld expressing our opinion on this matter because of the pending litigation in Kirk v. Board of Regents of the University of California. The United States Supreme Court recently refused a hearing in this matter "for want of a substantial federal question". This ruling thus upheld the authority of a public body to establish a durational residence requirement for the receipt of a tuition-free education or, recognizing the recent change in policy by the Regents, the authority to establish higher tuition for nonresident students then is to be established for resident students. In the recent decision by the United States Supreme Court, Shapiro v. Thompson, 37 L. Weekly 4334, the court stated in footnote 21:

> "We imply no view of the validity of waiting period or residence requirements determining eligibility to vote, eligibility to tuition free

education, to obtain a license to practice a profession, to hunt or fish, etc. Such requirements may promote compelling state's interests on the one hand, or on the other, may not be penalties upon the exercise of the constitutional right of interstate travel."

By dismissing the appeal in Kirk "for want of a substantial federal question" it would appear that the Supreme Court has now expressed its view at least as to the validity of waiting periods or residence requirements for the determination of eligibility for a tuition-free education. We must recognize, however, that the decision in Kirk did not resolve the question you have presented.

You are of course aware of the decision of the Idaho Supreme Court in 1960 in the case of Newman v. Graham, 349 P.2d 716 (a copy of this opinion is attached for your ready reference), in which this particular issue was specifically passed upon. The Idaho Supreme Court held that it would be unconstitutional to adopt a rule—whether by administrative regulation or by statute is immaterial—that would deny an individual an opportunity to show a change of residence status. Residence is obtained through a union of an act plus intent. (Government Code § 244.) To deny one group of individuals, namely, those who enter an institution of higher education as nonresidents, the opportunity to thereafter demonstrate a change in their residence status would constitute a violation of the equal protection of the laws provision of the United States Constitution. It would deny the opportunity to show a change in residence to persons of the same class who are similarly situated. We believe the Idaho Supreme Court correctly interpreted the constitutional issue and believe that California and Federal courts, if and when faced with this issue, would follow the ruling in Newman v. Graham.

Very truly yours,

THOMAS C. LYNCH
Attorney General

RICHARD L. MAYERS
Deputy Attorney General

Enclosure
RLM:ln

Sheldon NEWMAN, Plaintiff-Respondent,

v.

James E. GRAHAM, Marguerite Campbell, Curtis Eaton, John J. Peacock, and Claude Marcus, as the duly appointed, qualified and acting State Board of Education of the State of Idaho, and as Board of Trustees of Idaho State College, Defendants-Appellants.

No. 8833.

Supreme Court of Idaho.

Feb. 24, 1960.

Action challenging validity of regulation ordained by State Board of Education acting as trustees for Idaho State College. The District Court, 5th Judicial District, Bannock County, John A. Carver, J., rendered judgment for plaintiff, and defendants appealed. The Supreme Court, Knudson, J., held that when so interpreted as to deny student opportunity to show change of residential or domiciliary status, Board rule, providing that any person classified as a nonresident student, for fee purposes, should retain that status through continuous regular term attendance at any institution of higher learning in Idaho, was arbitrary, capricious and unreasonable.

Affirmed in part and cause remanded.

1. Colleges and Universities ⇐7

Board of Trustees had power to determine what qualifications should be required of persons admitted to Idaho State College, provided rules and regulations in that regard were reasonable and not arbitrary; and reasonableness of such regulations was question of law for court. I.C. §§ 33-101 et seq., 33-3003, 33-3008.

2. Colleges and Universities ⇐7

Rules and regulations promulgated by Board of Trustees of Idaho State College in exercise of delegated power were of same force as would be like enactment of Legislature; and official interpretation placed upon rule by Board would become part of rule. I.C. § 33-3008.

3. Colleges and Universities ⇐9

When so interpreted as to deny student opportunity to show change of residential or domiciliary status, Board rule, providing that any person classified as a nonresident student, for fee purposes, should retain that status through continuous regular term attendance at any institution of higher learning in Idaho, was arbitrary, capricious and unreasonable. I.C. § 33-3008.

Frank L. Benson, Atty. Gen., Milton E. Zener, Special Asst. Atty. Gen., B. James Koehler, Jr., Asst. Atty. Gen., for appellants.

R. Don Bistline, Pocatello, for respondent.

KNUDSON, Justice.

The facts in this case have been stipulated to be:

That respondent (plaintiff) is twenty-five years of age and self-supporting, and that he has been continuously in the State of Idaho since September, 1957; that immediately prior to his coming to Idaho he had been in the military service of the United States where he had served for a period of four years; that prior to his entry into the military service he had been a resident of and domiciled in the State of Vermont; that in September, 1957, and shortly after his arrival in the State of Idaho, he enrolled as a regular student at Idaho State College at Pocatello, Idaho, for the school year 1957-1958 and was required to and did pay non-resident, out-of-state tuition for the academic school year commencing September, 1957 and ending June, 1958;

That since his arrival in the State of Idaho in September, 1957, respondent has maintained continuous residence in and has not departed from this State;

That in September, 1958, respondent registered as a regular student at Idaho State College for the school year 1958-1959, commencing in September, 1958 and ending June, 1959; that respondent was require

upon registration in September, 1958, for such school year, to pay out-of-state tuition as a non-resident student; that respondent protested the assessment of such out-of-state, non-resident tuition, claiming he was a resident of the State of Idaho; that such protest was forwarded to the State Board of Education and by said Board disallowed by reason of the following regulation which has been adopted by said State Board of Education acting as trustees of Idaho State College, to-wit:

"Special Fees. Non-resident fee, (per semester) * * * $125.00.

"A student who has not been domiciled in Idaho more than six months preceding his first enrollment at Idaho State College is required to pay a tuition of $125.00 a semester in addition to the uniform schedule of fees of $69.25, making a total of $194.25.

"* * * Any person who is properly classified as a non-resident student retains that status throughout continuous regular term attendance at any institution of higher learning in Idaho."

That by reason of said regulation respondent has been classified as a non-resident student, and retains that status throughout continuous regular term attendance at Idaho State College;

That respondent has had no domicile or residence other than in Idaho since September, 1957; that he did register and vote in the Idaho 1958 election, and by reason of his continuous residence and domicile in the State of Idaho since September, 1957, has complied with all of the requirements for the establishment of residence in the State of Idaho, by both intent and actual residence, for all purposes except to qualify as a resident student under existing regulations of the State Board of Education (as set forth above) acting as Trustees for Idaho State College.

It is stipulated and agreed by the parties that the sole question for determination by the Court is:

"Whether the plaintiff who was properly classified as a non-resident student when he first enrolled at Idaho State College in September, 1957, can be required by regulations of the State Board of Education acting as Trustees for Idaho State College, to retain such status throughout continuous regular term attendance at Idaho State College, as prescribed by the regulation of the Board quoted hereinabove, it being stipulated and agreed the plaintiff has been and has become a resident of and domiciled in the State of Idaho for all other purposes?"

The trial court adopted the stipulation of facts as and for its findings of fact and as conclusions of law found that the regulation, in part, is:

"arbitrary, capricious and unreasonable and is an attempt on the part of the State Board of Education by regulation to assume and usurp the power vested only in the Legislature of the State under its constitutional authority."

and entered judgment accordingly. This appeal is from said judgment.

Appellant assigns as error the action of the trial court in making its conclusions of law and the entry of the judgment based upon said conclusions.

By the initiation of this action respondent attacked the validity of I.C. § 33-3008 and said regulation upon two grounds: First, that the Legislature had no power or right to delegate to the Board of Trustees the right to fix residence in this matter; and secondly, that assuming the Legislature did have such power, the regulation is arbitrary, capricious, unreasonable and unconstitutional. However, when this appeal was orally presented to this Court counsel for respondent informed the Court that he no longer questions the power or right of the State Board of Education acting as a Board of Trustees of Idaho State College (hereinafter referred to as Board) to ordain proper and necessary rules and regulations for the admission of students to Idaho State College (hereinafter referred to as College). Respondent's remaining contention is that

the regulation here involved is arbitrary, capricious and unreasonable.

The Board was created and exists under the provisions of I.C. Ch. 1, Title 33. Among its powers and duties is the general supervision, government and control of said College as provided in I.C. § 33-3003, to-wit:

> "Board of trustees.—The general supervision, government and control of the Idaho State College is vested in the state board of education, which shall act as the board of trustees of the Idaho State College."

Another statute pertinent to the question here involved is I.C. § 33-3008, which provides as follows:

> "Rules for admission of students.—The board of trustees shall ordain such rules and regulations for the admission of students to said Idaho State College as it shall deem necessary and proper. Students from other states, territories and countries may be admitted to all the privileges of said College upon paying such reasonable tuition fees as the trustees may prescribe."

[1] The Legislature of this State not having provided who shall be admitted to the Idaho State College and having delegated the power to make rules and regulations necessary to the government of the College to the Board of Trustees, the Board is invested with the power of determining what qualifications shall be required of persons who may be admitted to the College, providing the rules and regulations in that regard are reasonable and not arbitrary. The reasonableness of such regulations is a question of law for the courts. Foley v. Benedict, 122 Tex. 193, 55 S.W.2d 805, 86 A.L.R. 477; 47 Am.Jur. 328, § 47.

Pursuant to the provisions of said I.C. § 33-3008, supra, the Board ordained the regulation designated "Special Fees" hereinbefore set out in the stipulated facts. Validity of the following quoted portion of said regulation is questioned by this action, to-wit:

> "Any person who is properly classified as a non-resident student retains that status throughout continuous regular term attendance at any institution of higher learning in Idaho."

[2] The regulation specifically provides that a student who has not been domiciled in Idaho more than six months preceding his first enrollment at the College is required to pay a tuition in addition to the uniform schedule of fees. It is clear that, under said regulation, more than mere residence is intended and required in order to entitle a student to a classification which will exempt him from the payment of tuition. While the words "residence" and "domicile" are frequently used interchangeably the distinction is aptly noted in the following from Bouvier's Law Dictionary, Rawle's Third Revision and quoted with approval in Reubelmann v. Reubelmann, 38 Idaho 159, 220 P. 404, 405, as:

> "'A residence is different from a domicile, although it is a matter of great importance in determining the place of domicile. The essential distinction between residence and domicile is that the first involves the intent to leave when the purpose for which one has taken up his abode ceases. The other has no such intent; the abiding is animus manendi. One may seek a place for the purpose of pleasure, of business or of health. If his intent be to remain, it becomes his domicile; if his intent be to leave as soon as his purpose is accomplished, it is his residence.'"

Since the Board exercises delegated power, its rules and regulations are of the same force as would be a like enactment of the Legislature, and its official interpretation placed upon the rule so enacted becomes a part of the rule. Foley v. Benedict, supra; 55 Am.Jur. 13, § 19; 14 C.J.S. Colleges and Universities § 26.

Under the interpretation placed upon the foregoing quoted regulation by the Board it would necessarily follow that a student who is a non-resident of the State at the

time of initial enrollment at the College would, if he attends each regular term, retain such status throughout his entire college career irrespective of the fact that he may have become a bona fide resident and domiciled more than six months in the State during the intervening time. Under such interpretation it does not afford any opportunity to show a change of residential or domiciliary status and does in effect deny equality of opportunity to persons of the same class who are similarly situated and for that reason it is an unreasonable regulation. The authority of the Board, through its authorized agency or representative, to inquire into and ascertain an applicant's residential or domiciliary status is unquestioned. It is the denial to the applicant of an opportunity to be heard in the matter, within a reasonable time, that constitutes the objectionable feature of the regulation here considered.

It being stipulated that respondent has continuously resided and been domiciled in the State of Idaho since September, 1957, it is clear that he was improperly classified as a non-resident student upon registration for the regular term commencing in September, 1958. At that time (September, 1958) respondent had been domiciled in the State for more than six months and was entitled to be classified as other bona fide residents who had been domiciled in the State for the required six months period.

[3] We conclude that the regulation as interpreted by the Board is arbitrary, capricious and unreasonable. To the extent that the judgment appealed from is in favor of respondent it is affirmed, however, the following quoted portion of the conclusions of law as determined by the trial court, to-wit:

> "and is an attempt on the part of the State Board of Education by regulation to assume and usurp the power vested only in the Legislature of the State under its constitutional authority"

is in error. The cause is remanded with instructions to enter judgment in accordance herewith. Costs to respondent.

TAYLOR, C. J., and SMITH, McQUADE and McFADDEN, JJ., concur.